PHILADELPHIA, NOVEMBER 17, 1883.

ORIGINAL LECTURES.

CLINICAL LECTURE ON VARICELLA.

Delivered at the Hospital of the University of Pennsylvania

BY LOUIS STARR, M.D.,
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GENTLEMEN,—The child before you is a little more than six years old. She has been under observation about a year, and during this time has enjoyed perfect health. Two days ago she awoke quite as well as usual, but as the day wore on she grew pale, did not take her accustomed interest in play, and in the afternoon exhibited a desire to sit quietly by the fire, thus showing that she was both languid and chilly. She refused her supper entirely, and while she was being undressed for bed an increased heat of skin was noticed. She passed a restless, feverish night.

When I saw her in bed, at noon yesterday, her face was somewhat flushed and listless in expression, and she complained of slight headache. Her tongue was lightly frosted; there was increased thirst, and little or no appetite; there had been no action of the bowels for forty-eight hours, and the morning urine was high-colored and loaded with lithates. The axillary temperature was 100° F., and the pulse counted 110 beats per minute. The lungs were found, upon examination, to be perfectly healthy, and, beyond moderate congestion, the pharynx presented no abnormal appearance. However, when she was stripped, a papular eruption was observed, irregularly scattered over the surface of the chest, abdomen, and back. These papules were isolated, the intervening skin being sound; they were about the shape and size of a split-pea, deep red in color, quite yielding and soft to the touch, and two or three of those situated on the chest showed, upon their summits, a tendency to the formation of vesicles. Further, the eruption, while most marked upon, was not confined to the trunk, for several papules were to be seen on the face, and a few also on the arms and legs.

During the afternoon there was little or no increase in the fever, and sleep was much more quiet and restful than it had been on the preceding night.

As you see the patient this morning, you notice that, except some pallor and a slightly worn look, there is very little deviation from the normal facial expression. The skin feels moist to the hand, the thermometer indicates an axillary temperature below 99°, and the pulse, even under the excitement of coming before you, is only about 100 per minute. The tongue, you observe, is beginning to clean; there is no thirst, the appetite is returning, the bowels have been moved, and the urine has lost its febrile characters. There has been then, on this which is only the third day of the disease, a marked subsidence of the constitutional symptoms.

Let us next study the eruption. You will notice first that, while most abundant upon the trunk, it is distributed over the whole body, the scalp, even, not being exempt. Upon the face, scalp, and limbs it is mixed in character, there being in these positions both papules, having the features already described, and vesicles; on the other hand, all the papules yesterday observed upon the trunk have undergone conversion into vesicles. These vesicles are transparent, semi-spheroidal in shape, two or three lines in diameter, and cover the whole, or almost the whole, area of the former papules, in the first instance rising sharply defined from the normal skin, in the second being surrounded by a red areola about a line in width. There are two other points of interest, namely: several of the vesicles upon the chest have lost their transparency and are becoming opalescent,—a change due to the transformation of the serum into pus,—and here, upon the right buttock, is a pustule which shows a depression in its centre, or, in other words, is umbilicated,—an appearance depending on the commencement of desiccation.

To sum up the more important features of this clinical history, we have in the midst of health certain symptoms developed, namely: languor, chilliness, headache, loss of appetite, increased thirst, and moderate fever,—prodromes common to the eruptive fevers as a class; in less than twenty-four hours after their onset an eruption of soft red papules appears upon the trunk and rapidly extends over the whole surface of the body; not more than

twelve hours later these begin to be capped with vesicles, and at the end of another twelve hours nearly all of them are converted into vesicles and a few even into pustules; and, finally, at the present period of the disease, the beginning of the third day, there is a marked improvement in the general symptoms. Now, the only fever of childhood following the course and having the peculiar eruptive characters we have studied is varicella, or chicken-pox.

Since this case will have lost its distinguishing features before our next meeting, let me briefly sketch its probable future course, so that you may carry away a complete picture of the disease. Recall for a moment that the general symptoms are rapidly disappearing, that the majority of the papules have become vesicles, that some of the latter are becoming pustules and several even beginning to desiccate. By to-morrow (the fourth day) there will be no evidence of constitutional disturbance, except the moderate weakness which follows every trifling acute illness: the pulse may be feeble, but its frequency will be normal; the tongue will be clean, and the appetite good. All of the remaining papules will have been converted into vesicles, these again into yellowish pustules, and the process of desiccation will be fully established; then the pustules which have not been torn by the child's efforts to relieve the itching—for itching is often a prominent symptom—will show a shrunken appearance at their edges, or sometimes a little yellowish crust at their centres, producing a central depression or umbilication. The drying process, commonly proceeding from the circumference to the centre, will progress rapidly, so that by the sixth day it will be completed and all the pustules converted into thin, light-brown scabs. On the eighth or ninth day these will fall off and leave merely faint red, not depressed, and rapidly disappearing spots. Perhaps, though, if several of the vesicles have been unusually large and deep, and especially if accidentally broken by scratching, a scar, resembling somewhat the pit following a variolous pustule, will be left. Such pits you will usually find on the forehead or face, and it is very rare for more than one or two to be seen in a given case. By the time the crusts have fallen off the child will have, in great part, regained her strength, and with ordinary care there will be no drawback to the return to perfect health. Varicella has no sequelæ, unless we may so class the occasional attacks of bronchial catarrh, or, rarer still, of pneumonia, produced by careless exposure to cold or wet during the period of eruption or convalescence.

Scarlet fever and measles, the two most common eruptive fevers of childhood, present so few points of similarity to varicella, and so many of dissimilarity, that it is impossible to confuse them when the least thought is exercised. The eruption of varicella in the papular stage might possibly be mistaken for that of measles, but you must remember the course of the two diseases. In measles there is a period of incubation extending over four days, and characterized by severe catarrh of the conjunctivæ and of the nasal and bronchial mucous membranes, as well as by a peculiar rose-colored papulation of the roof of the mouth, soft palate, and uvula; in chicken-pox, on the other hand, the stage of invasion occupies a period of from twelve to eighteen hours, and is attended only by symptoms common to all febrile diseases. Again, the rash in measles appears first upon the skin in front of and behind the ears, instead of on the chest, as is the case with the varicellous rash; then, the papules of the former disease are smaller, firmer to the touch, and deeper red than those of the latter, and they have, too, a tendency to arrange themselves into irregular clusters, somewhat suggestive of crescents. When the varicellous papules begin to be converted into vesicles,—an early occurrence, as you know,—all doubt as to the existence of measles is of course at once set at rest.

There is one disease, however, which presents some superficial features of resemblance to the affection in question, and concerning which it is most important that an early and accurate diagnosis should be made. I refer to variola. The surface-lesion of variola begins as a crop of papules, which pass next into vesicles, next into pustules, and then desiccate with the formation of crusts, which after a time drop off, leaving discolored blotches. Just so far the resemblance to chicken-pox goes. What, then, are the distinctive points? First, the course of variola is peculiar, and very different from varicella, being divided into a series of well-defined stages, each about three days in duration; second, it is marked by two pyrexial periods,—a fever

of invasion and a fever of suppuration or maturation; and third, the eruption, while passing through the same changes, possesses well-marked differences.

The stage of invasion lasts three days, and is marked by bilious vomiting or convulsions, high fever, and severe pain in the head, back, and limbs. Some time on the third day the eruption appears in the form of small, dark-red maculæ, which are soon converted into papules. These are only one-third to two-thirds of a line in diameter, and feel to the fingers like small grains of shot embedded beneath the skin. They are first noticed on the forehead and about the angles of the mouth, and thence extend to the rest of the face, to the neck, trunk, limbs, feet, and hands. With their appearance the fever subsides. They grow somewhat larger until the end of the fifth or beginning of the sixth day, when they become converted into pointed vesicles, this conversion taking place in the order of appearance of the papules: they occupy at first only the summits of the papules, but gradually grow larger until they cover a greater surface than that originally occupied by the papules, become flattened, depressed in the centre or umbilicated, and surmounted by a red areola varying in width. The contents of the vesicles now slowly become transformed into pus, and by the eighth or ninth day they are all converted into pustules; during this transformation the pocks become distended and the umbilication is lost. Coincidently, too, the secondary fever, the fever of suppuration, sets in. About the twelfth day desiccation begins, and between the fifteenth and nineteenth the brown crusts begin to fall off. The desquamation leaves the surface in different conditions, but usually the ultimate result is the formation of little pits or depressed cicatrices which remain during life.

The eruption of variola may be found on all the visible mucous membranes, as well as upon the skin; the mucous surface first becomes injected, then dotted over the red area a number of papule-like elevations appear; these, after the second day, are converted into white, circular, and umbilicated pseudo-membranous points, which remain four or five days and fall off, leaving a shallow erosion, which heals without the formation of a cicatrix.

With variola, then, varicella stands contrasted by its brief invasion period, the short duration of its initial fever, the absence of a secondary pyrexia, the difference in the position at which the eruption first appears, the larger size and the softness of the papules, the many minor points of difference in the eruption that have been mentioned, and especially the rapid transition of its phases.

There are several features of variola which are usually mentioned as important distinctions between it and chicken-pox, but which are of little or no diagnostic value. The mistake has arisen from the supposed fact that certain symptoms—the appearance of the eruption on the scalp, the presence of the eruption on visible mucous membranes, the umbilication of the vesicles, and the pitting—are confined to the former disease. Such is by no means the rule; for you will often find in varicella the eruption upon the scalp, as is the case with this patient. So, too, although it is not present in this instance, we see in a majority of cases a varying number of pseudo-membranous points upon the mucous membrane of the cheeks and palate, which differ only from those of variola in being larger and more yellowish in color. Again, as I have pointed out to you to-day, the vesicles may, and frequently do, present an umbilicated appearance, and finally, under certain conditions, slight pitting may follow. The umbilication only occurs in those vesicles which begin to desiccate at their centres, and on close inspection you will be able to detect a minute crust in these positions. Both the cause and appearance differ, therefore, from the variolous umbilication, but the likeness is sufficiently close to be a source of confusion. The pits left by the two diseases are very like, though I have usually found those of varicella broader, shallower, and smoother than those of variola.

Let these points, then, be discarded in forming an opinion, and base the diagnosis upon the well-marked differences in the eruption and in the course of the two diseases.

Varicella is one of the least severe of the diseases of childhood, and demands very simple treatment. Ordinarily the child should be confined to bed until desiccation is completed, and to one room until the crusts have fallen off, and the strength has returned. Sometimes, when the case is very mild, it will be sufficient to keep the patient in one room until convalescence is established; this room must

always be well warmed (72° F.) and ventilated. After desquamation the patient must be taken into the open air in suitable weather, properly clad. While the fever and thirst continue, the diet must consist of milk guarded by lime-water, and plenty of water should be allowed; afterwards, the ordinary articles of food may be gradually added as the appetite returns.

In the way of medicines all the indications will be fulfilled by a simple febrifuge, such as liquor potassii citratis or "effervescing draught," an occasional dose of magnesia or other saline laxative, as demanded by the condition of the bowels, some bland ointment, as ung. aquæ rosæ or ung. zinci oxidi, to allay the itching, and, after the fever has subsided, a tonic, —elix. cinchon. ferrat., for example,—to improve the appetite and build up the general strength.

ORIGINAL COMMUNICATIONS.

REPORT ON THE PROGRESS OF GENERAL PATHOLOGY AND CLINICAL MEDICINE.

BY JAMES C. WILSON, M.D.

ICTERUS NEONATORUM.

DR. FREDERICK P. HENRY (*Archives of Medicine*, October, 1883) makes public the result of his investigations in the pathology of this affection. He seeks to determine the question of the mechanical (hepatogenic) or chemical (hæmatogenic) source of the cutaneous pigmentation. He points out that to produce experimentally the first of these two forms of icterus, it would be necessary to increase the bile-presssure *absolutely* by ligature of the hepatic or common bile-duct, or to increase it *relatively* by cutting off a portion of the portal blood-supply.

Now, this latter experiment is performed in the case of every human being by ligature of the umbilical cord. The portal blood-pressure is suddenly and markedly diminished; abnormal conditions of osmosis are established, and when jaundice ensues it is only necessary to prove that the number of the pigment-carriers, *i.e.*, the red blood-cells, has not been reduced, in order to settle the question of the mechanical origin of icterus neonatorum. This he has done by counting the blood-cells in new-born children.

Of the five cases in which this research was carried on, four only have a direct bearing upon the question in hand. These I reproduce in the brief notes of the author of the paper, partly for the sake of making clear his views, partly for their intrinsic value as a contribution to the general knowledge of the blood in new-born children, in whom the blood-cells have not hitherto been made the subject of systematic study.

Case I.—October 19, 1881. Alice K., born at 8 A.M. Count made at 10.30 A.M. The child was of average size, and not cyanosed. Labor had been natural and easy. No symptoms of suspended animation. Child crying lustily when born. Weight, eight and a quarter pounds. The blood was obtained by puncture of the great toe, and was venous-looking. (The average number of red blood-cells per cubic millimetre is, in the adult, at least 5,000,000.)

Number of red cells per cubic mm., 6,410,000.

No white cells in specimen examined.

October 20, 10.30 A.M. Second count in the same case. Child thriving.

Number of red cells per cubic mm., 5,810,000.

October 22. Third count. Child doing well; no appearance of jaundice.

Number of red cells per cubic mm., 5,680,000.

Case II.—John G., born October 20, at 12 (mid-day). Labor easy and natural. Child not asphyxiated; weight, eight pounds. Count No. 1 made at 11 A.M., October 21.

Number red cells per cubic mm., 5,925,000.

This count corresponds closely with count No. 2 in Case No. I, which was made about the same time after birth.

October 23. Count No. 2.

Number red cells per cubic mm., 5,520,000.

Faint yellowish tint of skin.

October 25. Count No. 3.

Number red cells per cubic mm., 4,870,000.

Child deeply jaundiced.

The third case, in which only a single count was made, has no special relation to the subject.

Case IV.—William S., born November 6, 5 A.M.; weight, six and a half pounds.

November 7. Count No. 1.

Number red cells per cubic mm., 4,520,000.

Proportion of white cells to red, 1 to 904.

November 8, 11 A.M. Count No. 2.

Number red cells per cubic mm., 5,335,000.

Proportion of white cells to red, 1 to 711.

Child slightly yellow.

Case V.—Sela F., female, born November 17, 8.15 A.M.; weight, seven pounds; labor rapid and natural; child healthy-looking.

November 19, 10.30 A.M. Count No. 1.
Number red cells per cubic mm., 5,185,000.
Proportion of white cells to red, 1 to 350.
November 21, 4 P.M. Count No. 2.
Number red cells per cubic mm., 5,495,000.
Proportion of white cells to red, 1 to 628.
Slight icteric hue of skin.

If icterus neonatorum were of hæmatogenic origin, in the sense that the coloring-matter of the blood is set free by a rapid disintegration of the corpuscular elements of this tissue, we would expect to find some constant ratio between the intensity of the discoloration and the diminution of the red blood-cells. This Dr. Henry's cases do not establish. It is true that in Case II., the only one in which there was marked jaundice, this condition coincided with a rapid and great diminution of red cells; but it is also true that in Case I. there was a very decided loss in red cells without the occurrence of jaundice, and that in Cases IV. and V. with a slight degree of icterus there was an actual increase in the number of red cells.

The author regards these facts as warranting the conclusion that icterus neonatorum is of mechanical or hepatogenic origin.

To the questions, Why does it not invariably occur, since the umbilical vein is ligatured in all new-born infants? and why is it more frequently met with in delicate children than in the robust? Dr. Henry makes this reply:

The degree of immediate interference with the portal circulation produced by ligature of the umbilical cord depends both upon the anastomoses of the umbilical vein with the veins of the abdominal wall, and upon the vigor of the cardiac contractions. Where there is free anastomosis and a vigorous heart, the intravascular blood-pressure in the hepatic lobules may be maintained to such an extent as to prevent the resorption of bile, and *vice versa*.

It is understood that the foregoing observations have reference to icterus neonatorum, properly so called, and do not apply to cases of jaundice by obstruction.

The paper is of importance as shedding upon a vexed question of pathology the light of actual experimental observation, where hitherto the facts were much obscured by surmise and conjecture. Further work in this spirit is needed to clear up the subject.

THE INFLUENCE OF IODOFORM UPON THE DEVELOPMENT OF GIANT CELLS.

Dr. Emil Marchand (*Virchow's Archiv*, September, 1883), in the course of a series of studies conducted with the purpose of determining the origin of giant cells around foreign bodies, was led to employ iodoform with the view of controlling suppuration in the wounds of the animals subjected to experiment. Strenuous antiseptic precautions with carbolic acid having failed, iodoform was dusted freely into incisions made for the introduction of the foreign substances, which were then closed by sutures. The result was not that which had been looked for. A certain amount of pus-formation occurred, and in some places it was even more abundant than by the former method of operation. At the same time, however, the interesting observation was made that the microscopic appearances at many points were different when iodoform was used from those where the wounds had been treated by carbolic acid. The development of giant cells was retarded to such an extent that in one case it was only after thirty days had elapsed, at a time when iodoform was neither macroscopically nor microscopically to be detected in the tissues, that they were found around the foreign substances (silk threads); whereas, in the wounds not treated by iodoform, giant cells were developed at an early period and in great abundance. The author concludes from these observations that iodoform, in wounds in which the conditions necessary to the development of multinuclear and giant cells are present, is capable of hindering such cell-formation. The favorable influence of iodoform upon the development and course of scrofulous and tubercular granulation-tissue, recognized by most surgeons, has found in these facts a histological explanation. The large-celled, fungous character of such surfaces, in some way altered by the action of iodoform, is brought into the condition of normal granulation-tissue.

The author, without reaching a definite conclusion as to the histogenesis of giant cells, regards it as highly probable that they are developed from fixed connective-tissue cells, and not from extravasated white blood-cells.

RENAL CIRCULATION DURING FEVER.

Dr. Walter Mendelson (*American Journal of the Medical Sciences*, October, 1883)

communicates an account of an experimental research into this subject, conducted at the Pathological Institute of the University of Leipsic. To this paper was awarded the Cartwright Prize for 1883. The research was carried on under the auspices of Professor Cohnheim. The instrument used was invented by C. S. Roy, and used by him previously in studying the functions of the spleen, and, in association with Cohnheim, the circulation in the kidneys. It is called the Oncometer, or "bulk-measurer," and can, it is said, be applied to the kidney without interfering with the functions of the organ, and affords an exact index to the condition of its circulation.

The mechanical principle of the action of this instrument depends upon the expansion and contraction of the organ under investigation (due to variations in the volume of blood circulating in it), causing corresponding variations in the amount of some surrounding confined liquid, as oil. By means of a suitable mechanical appliance called the Oncograph, these variations in bulk, transmitted to the surrounding liquid, are graphically recorded upon the revolving drum of Ludwig's Kymographion.

The dogs which were the subject of the experiments were rendered insensible to pain and immobile by destruction of the thalami optici. It was found that the puncture of one thalamus was sufficient for practical purposes, and that the temperature rose more rapidly and higher than when both thalami were destroyed. Fever was induced by the intravenous injection of pepsin, or by keeping the animals enclosed in a warm-air chamber.

In all, the experiments performed with a view of determining the facts regarding changes in the renal circulation during fever numbered ten (seven with thermic fever, three with pepsin fever), and every experiment, without a single exception, showed during fever a progressive diminution in the volume of the kidney.

Several control experiments were made to settle the question as to the influence of the irritation of the manipulation of the kidney, or the presence of the oncometer, in bringing about contraction of the renal vessels. In these observations the instrument was applied to the kidney and left on for several hours, the bodily temperature being normal. The kidney retained its original volume as long as the animal remained afebrile, but began to contract upon the superinduction of fever.

The fact that the kidney contains no contractile elements except the blood-vessels makes it evident that changes in the volume of this organ must depend upon changes in the amount of blood contained in its blood-vessels.

Further investigations, to determine the central or peripheral nature of the irritations acting on the renal capillaries, led to the conclusion that "the decrease in the bulk of the kidney during fever is due to a contraction of its vessels, which, in all probability, is the result of a stimulus conveyed to them from the central nervous system; the stimulus being the consequence of irritation of the central vasomotor centres by the abnormally hot blood circulating through them during fever."

The results of these investigations are wholly at variance with the prevalent hypothesis concerning the condition of the renal circulation during fever. The opinion has been heretofore universally held that this condition was that of congestion. It was based upon the general condition of the circulation as observed in more accessible parts of the body, upon the changes occurring in the urine, and upon the state of the organs in post-mortem examination. Instead of being swollen from the distention of its vessels with blood, the kidney of fever is small, shrunken, and in a state of extreme anæmia. The diminution in the amount of urine excreted is due not only to increased loss of water by the lungs and skin, but also to diminished renal circulation. The albuminuria so common in high fevers is readily accounted for by the effect of the local anæmia upon the epithelium of the glomerules, which, insufficiently supplied with arterial blood, becomes so impaired in function as to be permeable to albumen. Repetition of these experiments will be looked for with interest. In the event of these results proving constant, a revision of the whole subject of the renal pathology of the acute febrile diseases will become necessary.

THE TRI-STATE MEDICAL SOCIETY changed its name at its last meeting, and is hereafter to be known as the Mississippi Valley Medical Society.

CONCERNING ARROW-WOUNDS.

BY W. THORNTON PARKER, M.D.

ALTHOUGH many of our Indian tribes are at present armed with the most perfect modern breech-loading rifles, the arrow is still the favorite weapon of many Indian warriors. Swift, silent, accurate, and deadly, it possesses for their purposes many advantages either for the chase or for warfare.

The arrow, one of the oldest of weapons, seems to have nearly outlived its usefulness, and no doubt will soon exist only in museums or in the gentle sport of archery, but at present it is an implement of Indian warfare still worthy of consideration. By our soldiers stationed on the frontier, and inured to constant Indian forays, it has ever been regarded with the greatest aversion, the most dreaded of all missiles to which they are exposed. A single scratch from one of these terrible implements is more to be feared than many a bullet-wound. In one of our frontier hospitals a soldier died in great suffering from what seemed to be a very superficial flesh-wound across the chest, made by an arrow in a skirmish with Indians. The arrow was left on the field, and so it was quite impossible to determine the nature of the poison; but that he was the victim of a poisoned arrow admits of little doubt. The supposition that the Indian shoots his arrows carelessly and wastefully is erroneous. It is possible for the expert marksman to discharge arrows rapidly, but it requires too much time and labor to make a perfect arrow; and, even if the Indian were not inclined to laziness, materials for arrow-making are usually too scarce to allow of much waste of such valuable ammunition in action. The arrow can be shot with as much precision as our best modern revolvers, and at one hundred yards is a deadly weapon. The arrow flies with great swiftness, and has great penetrating power. Several specimens in the Army Medical Museum show how deeply an arrow-head can perforate bone. A soldier rode into Fort Cummings, New Mexico, chased by Apaches. He had received one or two wounds, from the effects of which he died, and in the tree of the saddle he rode upon, an arrow-head was so firmly embedded as to defy removal.

The arrow of the American Indian is indeed skilfully prepared, light, straight, and strong. The shaft contains carefully-made grooves, to allow the blood to escape easily. Each tribe, and even each warrior, has easily-recognized devices on the shaft, so that they are able to determine from whom the arrow came. To secure the necessary feathering requires skilful fingers; but perhaps the best work on the arrow is shown in the attachment of the head to the shaft. After carefully drying and straightening the shaft, a slot is made into which the arrow-head is carefully fitted and bound with wet sinew. The drying of the fibres contracts until the arrow-head is secure.

Many of the best arrow-heads are manufactured in the Eastern States and sold to Indians through the traders, or even issued by Indian agents; but they are mostly made from scraps of iron hooping, of flint-stone, bone, glass, wood, etc. Not long ago, many agricultural implements, presented to the Indians by admiring Eastern philanthropists, furnished admirable opportunities for the manufacture of countless quiverfuls of arrows.

The attachment of the arrow-head, although secure while dry, rapidly loosens when wet, and it is on this account that it is almost impossible to remove shaft and head from a wound. The head is almost certain to become detached and remain hidden or firmly embedded in the wound.

But if the Indian has shown considerable skill in the manufacture of the arrow, he also possesses remarkable surgical ability in removing an arrow from the wound.

The removal is effected by taking a willow stick and carefully splitting it and rubbing it as smooth as possible; then the pith is carefully cleaned out, and the ends rounded to present as little obstacle as possible in following the wound-track. One stick is introduced very carefully to reach and cover the uppermost fang of the head, and the other to cover the lower fang, and when both are properly adjusted the outer ends are bound to the shaft of the arrow, and all are carefully and slowly withdrawn. When it is possible to push the arrow through until the head is exposed and cut off, it should be done; the shaft can then be drawn backward easily. No traction should ever be made with the shaft unless the head has been removed; for the least effort in this direction is sure to loosen it and leave the head in the wound, thereby adding increased dangers to a wound already serious.

Much difference of opinion seems to exist concerning the poisoning of arrows, and many deny that the American Indian intentionally poisons his arrows; nevertheless it is generally admitted that most of our Indian tribes practise the art of arrow-poisoning and show considerable devilish ingenuity in doing so. In the first place, we must consider that all tribes hold more or less secret all that relates to the education of the warrior, and it is not surprising that the mysteries of arrow-poisoning are not so lightly valued as to enable any one to become familiar with the process. It is very naturally a secret which few warriors would care to communicate. Many substances are used, and undoubtedly some methods elaborate in disgusting details fail to make the arrow as poisonous as some of the simpler methods seem to do. Some rely upon juices pressed from poisonous plants, into which not only the heads but the shafts also are dipped, and others use animal substances and fluids, like rotten flesh and putrid blood, even reserving portions of dead enemies for this purpose, although this last method is very rare indeed. Some use a combination,—for instance, a liver and mashed serpents' heads,—but generally each warrior or family have their own secret method of poisoning, as well as of preparing the "medicine" to make the arrow deadly.

Perhaps the commonest method and least secret of all is to take a beef's liver and stick it full of arrows, like pins in a pin-cushion, and leave it in the sun until the animal mass has rotted away. M. Hoffman* has stated regarding "poisoned arrows," at a recent séance of the Société d'Anthropologie, that "the Apaches [Cayoteres, *sic*] bruise up the heads of rattlesnakes with fragments of deer's liver, allow the mass to become putrid, then dip the arrow-points, and allow them to dry slowly." He also mentions the use of poisonous plants, *i.e.*, the "Spanish bayonet," also red ants pounded together, and other methods.

Besides being more elaborately decorated, if not certainly poisoned, the war arrow differs in make from the plainer hunting arrow. The head of the war arrow is shorter and broader than that of the hunting arrow, and is attached to the shaft at right angles with the slot which fits the bow-string, the object of this being to allow the arrow in flight more readily to pass between the human ribs, while the head of the hunting arrow, which is long and narrow, is attached perpendicularly to the slot, to allow it to pass readily between the ribs of the running buffalo.

These arrows are also used for conveying fire, either in considerable masses to set fire to hay or to inflammable buildings, or as signals at night. The writer was once with an expedition crossing the plains, and at Cimarron Crossing the whole command was surrounded by large numbers of Indians, who during the night seemed to be in communication with each other from one side of the river to the other by means of fire-arrows.

All these details which I have mentioned show how skilfully the Indian arrow is made, and also what a formidable weapon it must be in the hands of experienced and crafty marksmen.

The following remarkable case illustrates the fact that, while the simplest arrow-wounds may prove mortal, recovery can follow a wound which from its very nature seemed certainly to have no other than a fatal result in prospect:

While passing through the little town of Trinidad, New Mexico, some years ago, I was called to see a man who had received a severe and apparently desperate arrow-wound through the right chest in a skirmish with Indians a day or two before. The arrow had penetrated quite through the right lung. Either the arrow-head had passed quite through between the posterior ribs in the first instance, or had nearly done so, and had finally been pushed out (probably by some one familiar with arrow-wounds). At any rate, enough had passed through to allow of detaching the head from the shaft, and then the shaft itself had been withdrawn the entire length of the wound.

Some hemorrhage had followed this rough surgery, but how much I was unable to ascertain, and the shock, which had at first prostrated the patient, had been recovered from. I found the patient, a strong young man, in bed, apparently comfortable, and without cough. He seemed to have little if any serious pain, but his countenance exhibited suffering. I ordered cold-water compresses, and left some Dover's powders to be taken at intervals, and I also left some quinine and a couple of bottles of wine for his convalescence. Some months afterwards I met the man in robust health, driving a Rocky Mountain four-horse stage-coach, and with only the external marks of his desperate wound remaining. I understood from him

* Philadelphia Medical and Surgical Reporter, July 28, 1883.

that his recovery had been rapid and without any further hemorrhage or other drawbacks. He seemed to have the free use of his lungs also.

Surgeon Bill, U.S.A., has contributed to Ashhurst's "International Encyclopædia of Surgery" a most interesting article on arrow-wounds.* He says that "arrow-wounds penetrating the chest and wounding the lung, although serious, are by no means mortal. . . . If the patient survives the period of hemorrhage the prognosis is favorable, for the consecutive inflammation is usually trifling, and requires no treatment beyond placing the patient at rest and affording a supply of pure warm air." He also directs that "if the head of the arrow has passed from one side of the chest to the other, it should not be operated upon with a view to removal backward, but should be pushed forward between the ribs until the head can be detached from the shaft, and then the shaft withdrawn." Dr. Bill also states that "if the head of the arrow has been left in the lung-tissue, nothing can probably be done for the patient." In Dr. Bill's table of arrow-wounds of the chest, he shows that in eighteen cases there were thirteen deaths,—about 72 per cent. There were five recoveries.

NEWPORT, RHODE ISLAND, August, 1883.

A CONTRIBUTION TO THE STUDY OF RÖTHELN, OR GERMAN MEASLES.

BY BOARDMAN REED, M.D.

Atlantic City, N.J.

A GOOD many cases of this trifling affection have been observed in Atlantic City during the last six weeks. It is, indeed, so unimportant a disease that it would scarcely deserve to be dignified by scientific study but for the fact that it has been often confounded with a mild form of scarlet fever. True, the differences between them are so well marked that to one thoroughly acquainted with them such a mistake is impossible; but physicians who have not given the subject especial attention and followed carefully the current literature concerning it may well be pardoned for the lack of such a thorough acquaintance with the diagnostic differences, since no one text-book among the dozen or more which I have consulted contains a complete and wholly accurate account of the minor affection.

One of the best accounts of Rötheln, or German measles (called also Roseola by some of the older authors), was contained in a paper contributed by Dr. Louis A. Duhring to the *Philadelphia Medical Times* of March 26, 1883. So far as I know, Dr. Duhring was the first to call attention to the fact that in most cases of the affection there is enlargement of the chains of lymphatic glands about the neck, which is sometimes very marked indeed, in other cases very slight. I can fully confirm this observation. The cases I have seen during the recent prevalence of the disease here, as well as those previously observed by me, almost without exception presented this important sign.

Dr. Duhring, in the same paper, gave a clear anatomical description of the eruption in its various phases; and it by no means always presents the same appearance.

Dr. John M. Keating also, a few years ago, gave a full and exhaustive account of Rötheln in a medical paper which I cannot now lay my hands upon.

Most of the authors who have written in text-books upon this subject (though our own Bartholow, and Dr. Edward Ellis, of England, are notable exceptions) convey the idea that Rötheln is always a febrile affection, the fever being usually of light grade. Most of the cases seen recently by me were quite apyretic. The children ate as usual, and made no complaints. But for the formidable-looking rash, they would have been allowed to play about without any suspicion of their being otherwise than well. Indeed, I encountered several cases among children seen upon the streets or carried by their nurses into shops, the eruption in these instances being supposed to be "tooth-rash." In some cases, however, there was considerable malaise and an accompanying sore throat. The fever, where any existed, which was very seldom, did not go above one hundred or one hundred and one degrees, and always subsided by the second day.

Another point of importance is that there may be, contrary to the statement of certain authors, some desquamation; but this is never so marked as after scarlatina. Most authors deny that there are ever any

* *Op. cit.*, vol. ii. p. 116.

complications or sequelæ, which is also in accordance with my own experience; but one of my colleagues informs me that he has seen a case which was followed by slight albuminuria and dropsy, and Dr. J. Lewis Smith mentions that these, as well as chronic bronchitis, may sometimes follow German measles.

In two of my recent cases the eruption was very partial, and peculiar in other respects. I was called to see two children, brother and sister, who were supposed to have been poisoned. The boy, aged 5, presented a decided dermatitis involving the whole of both cheeks, with considerable œdema of the lower eyelid on one side, and extending in a less intense form to the sides and front of the neck. The skin was of a fiery-red color and very finely punctated, resembling closely the condition produced by an excessive application of kerosene. The face was also hot to the touch, though the remainder of the body was cool and the temperature and pulse not above the normal. The boy had complained of a slight sore throat, and a mild application of kerosene had been made to the neck for a short time the preceding evening. This would have been deemed sufficient to account for such an evident localized dermatitis, but for the coincident condition of the other child. This one, a girl aged 3, presented a diffuse punctate rose-colored rash over the whole of the thorax, front and back, extending slightly over the abdomen, but not at all to the limbs, and leaving the face entirely free. To complicate the matter further, there were two large, irregular-shaped, fiery-red patches of genuine dermatitis, about three inches in circumference, upon the breast of this child. The chains of lymphatic glands about the neck were slightly enlarged in both cases. These eruptions were somewhat longer in disappearing than usual, persisting for four or five days, but in neither case extending beyond the limits described.

Twelve days later I was called to see a third child in the same family on account of a slight erythema of the fauces, accompanied by a very marked enlargement of the submaxillary gland upon one side, as well as a little swelling of the smaller lymphatics about the neck. There was found a fine punctate rash upon the tonsils and velum palati, but *no rash whatever upon any external part of the body.* Temperature and pulse normal, and appetite good.

The foregoing cases are, of course, open to doubt, but I consider them to have been irregular forms of Rötheln, modified by some peculiarity of constitution common to this family.

Sufficient prominence has not been given to the differences in the pulse in Rötheln and scarlatina. It is seldom or never much accelerated in the former, even when there is fever; it is nearly always greatly accelerated in the latter, and out of proportion to the amount of fever.

In the German measles there is usually no catarrh of the eyes, nose, or bronchial tubes, though slight suffusion of the eyes is not rare.

Coincidently with the epidemic of Rötheln recently observed here, there were a very few sporadic cases of genuine scarlatina, traceable to convalescents brought from Philadelphia; but the only deaths, two in number, occurred in the family of the proprietor of a boarding-house in the extreme northern part of the town. His children became infected with a severe form of the disease from a little patient who boarded in their house at the latter end of summer.

It is no unusual thing for contagious diseases to be thus introduced here from the cities; but the antiseptic influence of the ocean breezes assists in preventing their spread, while the health authorities, as well as the hotel-proprietors, from the powerful motive of self-interest, enforce such rigid quarantine measures that the contagion, as a rule, is promptly stamped out.

In this connection it is proper to state that the health of Atlantic City is now remarkably good. So far as known, there are no cases of any form of fever existing here.

THE USE OF RESORCIN AND CHINOLINE SALICYLATE IN OTORRHŒA.

BY CHARLES H. BURNETT, M.D.

RESORCIN, $C_6H_4(HO)_2$, is a parabioxybenzole, discovered in 1864 by Hlasiwetz and Barth, and introduced into medical practice in 1877 by Andeer. Dr. E. De Rossi, of Rome, was among the first, if not the first, to use this drug in the local treatment of chronic purulent otitis media. In the *Archives of Otology* (1880,

p. 244) Dr. De Rossi reported that he had then been using resorcin for some months, having in this time employed it in two hundred cases of chronic purulent otitis, and he stated that he felt justified in claiming that no remedy at his disposal had ever given him such substantial results in this obstinate affection as resorcin. Cases which had been unsuccessfully treated with caustics for months, yielded after a few applications of this remedy. Resorcin is soluble in alcohol, glycerin, and water, and it may be used pure or in solution in varying proportions. Its therapeutic value would seem to depend upon its antiseptic properties.

I have used powdered resorcin both pure and mixed with boric acid, one part to seven of the latter, blowing it into the fundus of the canal of a discharging ear after the latter had been cleansed either by syringing or by swabbing with absorbent cotton. After the ear is thus cleansed, a little of the powdered resorcin, or borated resorcin, is taken up by means of a short quill on one end of a piece of black-rubber tubing, the other end of which tubing is held in the operator's mouth. Under good illumination of the canal and its fundus with the forehead-mirror, the powdered resorcin may thus be blown into the drum-cavity, if the perforation in the drum-membrane be large enough. Being disposed to deliquesce, it is not a perfect powder for convenient insufflation when used pure, as it is not easily made into a dust. Hence the borated form is preferable. I have used it also by swabbing the mucous cavity of the discharging drum (by first moistening some cotton twisted on the cotton-holder with water, next mixing some of the pure resorcin into a thin paste until it is absorbed by the cotton, then swabbing the ear with it). It certainly has proved a good remedy in many obstinate cases of otorrhœa.

Chinoline Salicylate.—Chinoline is distantly related to resorcin. Its properties have been recently investigated by Dr. Julius Donath, of Baja, Hungary. Dr. Sadtler, in the *American Journal of Pharmacy* for February, 1882, p. 81, speaks of chinoline and its salts. Chinoline's formula is C_6H_7N, and it is the first of a homologous series of eight similarly constituted alkaloids, each member of which differs from its predecessor by the addition CH_2. It is manufactured on a large scale from coal-tar,—chinoline and aniline being found almost without other admixture in the last portions of the distillate known as "dead oil." It is an energetic bacteria-poison in a one-fifth per cent. solution, and in the same proportion it prevents lactic acid fermentation, although it exerts little or no influence on yeast-cells. It forms several salts, among which the tartrate and the salicylate are best known. The latter being a colorless and amorphous powder, I have chosen it for insufflation in chronic purulent otitis media, or otorrhœa.

In December, 1881, I began to use chinoline salicylate, in an undiluted form, as a powder for insufflation into the ear in chronic purulent otitis media, and also in otitis externa diffusa, caused by the growth of aspergillus in the auditory canal, basing my therapeutic attempts with this drug on its properties as just set forth. It is to be blown into the canal and its fundus by the same simple powder-blower already spoken of when discussing resorcin.

It is a detergent and disinfectant powder, and hence a healing application in the above-named diseases. It is especially potent in the destruction of the parasitic aspergillus, one application having in several cases arrested the growth of the fungus, destroyed it, and thus cured the otitis externa caused by the parasite. I found, however, that when used in the pure, undiluted form the powder caused more or less burning, and if the ulceration lay in the skin, as in the cases affected by the parasitic aspergillus, the use of the undiluted powder in some cases caused pain in the ear.

Therefore, I diluted the chinoline salicylate with eight times as much finely-powdered boric acid, and this has given great satisfaction in my hands, especially as a prompt destroyer of the aspergillus.

The physical properties of chinoline salicylate, it being a very light and amorphous powder, render it most convenient for insufflation, and its known chemical nature would lead us to expect, *a priori*, that it would render good aid in many cases of aural discharge.

Our interest in all forms of powders for insufflation into the ear should be great, as it is now very well established that the "dry treatment" by means of powders is preferable to any other local remedial measure in the great majority of cases of diseases of the ear characterized by dis-

charge of pus, sero-pus, or mucus through the external auditory canal.

Just enough borated chinoline salicylate is to be blown into an ear to dust thoroughly the inflamed surface, but not enough to pack the fundus and the canal. Under the application of both resorcin and chinoline the mucous membrane becomes blanched, the odor of decomposing pus is lessened or entirely removed, and the secretions diminish and then cease. Neither drug is a specific, though chinoline almost approaches it in cases of aspergillus in the ear. Both drugs are certainly valuable additions to the surgeon's armamentarium. No one but the writer has recommended or used the chinoline salt in ear-diseases, as far as he knows; but it is hoped that it will receive a trial at the hands of others, and that more facts concerning its action shall be forthcoming.

A NEW FORM OF HEMORRHOIDAL FORCEPS.

BY P. G. SKILLERN, M.D.

SEVERAL instrument-makers of this city have made, at my request, a simple and efficient instrument for extirpating hemorrhoids. It was devised for the purpose for which Smith's clamp has been employed, for which it is a perfect substitute. Perhaps the description of the forceps may be properly introduced by a brief report of a case in which the instrument was used, which will also illustrate the mode of treatment.

Cavalry recruit, aged 22 years, suffering with a large internal pile, the size of a walnut, which disabled him from his duties, applied to me for treatment last spring. I found, upon examining the parts, that the tumor was much inflamed and very painful. It was reduced, and sedative astringent lotions and ointments were applied. In the course of three days it required to be reduced several times. The inflammation having now been relieved, it was decided a proper time to operate. He was etherized, and placed in position on his left side; the hemorrhoid was drawn well down with a tenaculum, the forceps applied grasping the base of the tumor, and it was excised; the stump was cauterized with the actual cautery before the forceps were removed. There was no hemorrhage. He was then given an opium suppository, and four days afterwards was discharged cured, the parts being perfectly clean.

Equally good results have been obtained in other cases. I will now describe the instrument:

The hemorrhoidal forceps is six and three-quarter inches in length, the blade being two and a half inches long and half an inch wide; it is curved on the flat, and has the approximating surfaces slightly serrated, not sufficient to wound the pile,

but just enough to grasp it tightly and prevent any slipping. It is opened by pressure on the handle, which being relieved, the blades close strongly and firmly, and in its grasp will securely hold a thin sheet of writing-paper. In operating, the patient is placed on the left side, with back to the operator, and the instrument applied with handle pointing posteriorly, and between the nates, so as to be entirely out of the surgeon's way; the pile is then cut and cauterized. The blade, being small, can readily be introduced within the rectum through a speculum. The advantages claimed are—first, its simplicity, a very desirable requisite in all surgical instruments; second, its weight and size; third, its facility of application; and last, its moderate cost.

I prefer excision to injection with carbolic acid, because I think it is safer; the patient is relieved sooner and with less suffering. I always cauterize with actual or galvano-cautery. The duration of the treatment is certainly shorter by this method than by any other. I would excise all external piles, also internal piles when the areolar tissue is greatly thickened and the pile made spongy or fleshy by inflammatory deposit and coagulated blood, and think it is safer even to excise the vascular globular variety, if the forceps be well applied and the stump well cauterized.

DEATH OF PROFESSOR DEPAUL.—On the 22d of October, Professor Depaul, the celebrated obstetrician, died at his native place, near Pau (Basses-Pyrénées). He was a commander of the Legion of Honor, member and formerly president of the Academy of Medicine, and one of the committee of publication of *La France Médicale*. He was 72 years of age, and died of pneumonia.

A CASE OF CONCUSSION OF THE BRAIN IN AN INFANT.

BY P. HOOPER, M.D.

E. K., aged 20 months, was struck on the head with a stone while seated in a baby-coach, as I was informed when called to see the case, a few hours after the accident. When I first saw the patient, she was screaming violently at times, as if in intense pain. The pulse was weak and slow, and the temperature below the normal. She had had several convulsions before I saw her,—afterwards none. Hot applications to the feet, spine, and epigastrium were ordered. Later, on the evening of the same day, I saw the patient again. Reaction had now set in. Ice-bags were placed on the head, and one-fifth of a grain of calomel and one-twentieth of a grain of morphia given every four hours. Five grains of bromide of potassium were also given every three hours. After the second day the morphia was discontinued, and two and a half grains of chloral substituted. On the third day the little patient had convulsions on the side of the body opposite the site of injury. The muscles of the face twitched violently, and the toes were in almost incessant motion. The bromide and the chloral hydrate appeared to check the convulsive movements, and it was used during the entire period of the child's unconsciousness. After a few days the calomel was dispensed with, and iodide of potash given to help absorb the clot of blood on the brain. The bowels moved freely during the sickness. The pupils were dilated and the eyelids firmly closed, and unconsciousness was complete.

After reaction set in, the temperature seldom rose above 103° F. The pulse ranged from 160 to 170, and was quite weak and thready. By keeping the ice constantly on the child's head the temperature was kept within 103° F., and whenever it was taken off the temperature rose very rapidly. After the temperature had fallen to 102° F., and even to 101° F., the pulse still kept at 160 and over, still being weak and thread-like, and even after the temperature had reached the normal the pulse still remained high and weak. Milk constituted the diet, with a soft-boiled egg occasionally. Pieces of ice were from time to time placed in the mouth, and were readily cracked and swallowed by the patient. Whiskey was given with the milk, as the need of it was apparent from the feebleness of the pulse. The ice was kept constantly on the head for two weeks, day and night, and to the touch the head felt almost as cold as the pieces of ice. Two weeks had passed by, and still the child showed no signs of consciousness; the convulsive movements still continued. It now seemed a debatable question whether trephining the skull should be resorted to: if that were done, it did not seem possible that the child could survive: so expectancy and conservatism were deemed proper. Late on the fifteenth day the child said "Yes" to a question asked by the mother, and for the first time showed any signs of consciousness. For several more days she lay at times in a semi-unconscious state, but the improvement in her condition was noticeable from day to day. Later on, tonics (iron and quinine) were given. For several weeks the child was unable to walk, and could not stand on her feet long at a time. She gradually improved; the tonics were not given long after she was taken from her bed. To-day she is perfectly well. No unfavorable symptoms have developed. The stone, which was thrown by a boy into a pear-tree, came from the upper part of the tree, —one of medium height; on being placed on the scales, it weighed a pound.

3509 North Seventeenth Street.

A CASE OF TYPHOID FEVER, WITH ABORTION IN THE THIRD MONTH—DEATH—ULCERATION OF PEYER'S PATCHES, AND HIGHLY FATTY KIDNEYS.*

BY HENRY F. FISHER, M.D.

L. K., æt. 43, married, German, was admitted to the Episcopal Hospital, September 15, 1883. The following notes were taken by Dr. George M. Boyd, resident physician. She stated, on admission, that she had been sick two weeks, that the trouble began with general lassitude and headache. Her bowels had been loose, and she had passed blood in small quantities. The abdomen was somewhat tympanitic on percussion, and there was pain complained of on pressure over the right iliac fossa, and gurgling on pressure over this region. The patient seemed rather unusually prostrated;

* Reported to the Pathological Society of Philadelphia, September 27, 1883.

tongue coated with brownish fur and very dry.

September 17.—Temperature this evening 103°; bowels loose; she complains of pain in both lumbar regions, apparently along the course of the colon.

September 19.—Evening temperature 102°; heart's action weak, but otherwise seems to be doing well.

September 20.—Temperature 103°; heart very feeble and irregular. Patient presents all the symptoms of profound shock. Menstruation stated to have come on suddenly this morning with much loss of blood. Vaginal examination reveals widely-open os and large uterus. Several large clots were removed, but failed to remove placenta, which was tightly adherent. Hot-water injections and ergot were ordered, with alcoholic stimulants, but no reaction took place, and the patient died at nine o'clock the same evening.

The post-mortem examination revealed numerous enlarged and ulcerated Peyer's patches in the lower portion of the ileum, inflammation also of the solitary glands, and swollen mesenteric glands. The uterus seemed about the size of a uterus at the beginning or middle of the third month of pregnancy. The kidneys were highly fatty.

N.B.—An embryo, it seems, had been passed, but was, unfortunately, thrown away by the nurse with the other discharges.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF WILLIAM PEPPER, M.D., LL.D., PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA, OCTOBER 14, 1882.

Reported by WILLIAM H. MORRISON, M.D.

SUBACUTE INFLAMMATION OF THE CARTILAGES AND PERIOSTEUM OF THE LOWER PORTION OF THE SPINAL COLUMN.

GENTLEMEN,—I bring before you today this aged physician because he is an admirable illustration of the beneficial effects of mechanical appliances in certain troubles about the spine.

He is 70 years old, and one of the oldest living graduates of the University, having graduated forty-seven years ago. Until November 1, 1879, he was in good health. He was then taken ill with pain in the lumbar region of the spine, extending down the legs. The trouble was considered to be lumbago and sciatica, and was treated accordingly, but without benefit.

During the winter he was attacked by violent pain in the lumbar region, followed by jerking, spasmodic movements of the legs. He could not move the limbs without bringing on the pain and spasms from the waist down. Movement of the body brought on spasm of the lumbar muscles. He had no pains in other parts of his body. He says that the explosive pains felt as though caused by an overcharged battery or the discharge of a cartridge in the spinal column. The attacks of pain and spasm continued for three or four days, and recurred every two or three weeks, and seemed to be influenced by changes in the weather.

He was treated by the administration of anodynes, belladonna, atropia, the use of blisters, acupuncture, and the actual cautery, but with little or no benefit.

In May, 1881, he was so prostrated as to be unable to turn in bed without help, and the least disturbance of the spine would induce spasm of the lower extremities. About the middle of June he was admitted to the hospital. An examination at this time showed that there was no trouble about the brain or upper portion of the spinal cord; that the lower extremities were not paralyzed; that there was no paralysis of the bladder or rectum; that the muscles of the legs were soft and perhaps slightly wasted (this was most marked on the right side); and that he had these severe attacks of pain in the region of the lower lumbar vertebræ. These pains were caused by deep pressure along the lateral processes of the lower vertebræ, and also by pressure along the crest of the ilium. No abdominal tumor or aneurism could be found, which, by pressure on the lumbar spine and nerves emerging from it, could cause the fixed local pain and the radiating pains of which he complained. There did not seem to be any reason to diagnose organic disease of the substance of the cord, but rather irritation of its surface and of the nerves emerging from it. There were no evidences of slow progressive degeneration, either sclerosis or softening.

In sclerosis of the posterior columns usually, and sometimes in sclerosis of the anterior columns, there is considerable

twitching of the lower extremities, and a good deal of darting pain. The pain from which this patient suffered differed entirely from that of ataxia. It came on in spells apparently influenced by the weather, and was also provoked by motion, and particularly by anything which caused pressure, or which imparted the least motion to the lower portion of the spinal column. Ataxic pains usually do not have any reference to changes of weather, and no reference to quiet or motion. They are singularly erratic, now in one place, now in another, lasting a short time, coming and going. In this case, however, they were quite protracted and continued. They were also associated with a degree of muscular spasm which was unlike anything met with in the early stage of locomotor ataxia. Lastly, there was intense local soreness, evidently due to pressure. This is not met with in ataxia. The pains were not associated with any paralysis of the bladder, nor was there any disturbance of sensation in the extremities, as is usual in ataxia. Sclerosis, softening of the cord, and chronic myelitis were therefore excluded, and I concluded that his condition was dependent on disease of the bone or of the ligaments and cartilage of a rheumatic or gouty character, and probably affecting the sheath of the lumbar nerves. At this time there was a distinct projection of the eleventh dorsal vertebra. The question therefore came up whether there had been actual disintegration and caries of the bodies of the upper dorsal or lumbar vertebræ, or whether it was simply a subacute inflammation of the cartilage and periosteum. I need not say that it would be very unusual to have a rapid caries develop in a man of seventy, not scrofulous, and who had met with no injury. On the other hand, subacute gouty and rheumatic inflammation is not uncommon under such circumstances.

I ask him to remove his leather jacket, and you see that the spine of the eleventh dorsal vertebra is still prominent. This may have existed before he was taken sick, or it may be due to thickening and infiltration of the periosteum around the spinous process. I did not at any time feel certain of the existence of caries.

The symptoms, evidently, were to be explained by inflammation, thickening, and pressure upon the nerves at this part of the spinal column. The same symptoms mark the early stage of angular curvature of the spine. There is in this condition pain in the spine, increased by motion, and spasm and radiating pains in the lower extremities, and these increased by motion. This condition may be simulated by an inflammation of a slower character, not going on to disintegration of the bone.

He was kept in bed, on a nutritious diet, and plaster-of-Paris jackets applied at varying intervals. This treatment was followed by relief of the pain. Systematic manipulation of the limbs, passive motion, and massage were employed; passive movements were also made about the lumbar region when the jackets were off. The leather jacket which he now wears was put on last winter. Three months ago he began to walk with canes, and went to the sea-shore; this was followed by improvement in strength and general health. He is at present in very good condition.

During all this time he has taken very little medicine. He had for some time alterative courses of iodide of potassium and minute doses of mercury; during the greater part of last winter that constituted the whole treatment. Under this treatment he has recovered. His recovery, I think, demonstrates that caries did not exist. If there had been caries and disintegration of two vertebræ, I do not think that our patient would be in the condition in which we see him to-day.

Mechanical support is often of great value in medical cases. This is particularly true in painful affections about the spinal column: you will often obtain cures by simple means with the use of such support, where, without them, the most vigorous efforts would fail.

PLEURISY AND EMPYEMA IN CHILDREN.

I shall next show you a little child who has for some time been under the care of Dr. J. H. Musser, and, as it is an interesting case and one worthy of careful study, he has kindly sent it to us for examination.

The child is a boy, twenty months old, who, on the 4th of July last, was taken sick with severe enterocolitis. This was followed by pain in the chest, and the symptoms of pleurisy of the right side. His appetite is good; he does not vomit; he does not sleep well, does not seem to have fever, sweats a great deal, and has lost some flesh.

On examining the chest, we at once ob-

serve an enormous discolored projection, just outside the line of the right nipple, near the lower margin of the ribs, occupying a space two and a half inches in diameter, and projecting an inch and a half from the normal level.

Let us search for other signs. The breathing is labored, and performed entirely by the left side; the right side is motionless. Percussion on the right side reveals under the clavicle a hollow sound quite different from the normal pulmonary resonance; it resembles the sound produced by percussing over a small cavity. The tympanitic resonance which is naturally heard above a large pleural effusion must not be confounded with the tympanitic resonance heard over a cavity. At the second rib, in front, flatness begins, and is continuous to the base of the chest; behind, the whole of the right side is flat on percussion: this, as you know, is one of the most marked physical signs of effusion. On the left side, the pulmonary resonance is perfect, and even a little exaggerated.

Auscultation of the left side reveals exaggerated breathing, and I also hear a few sharp, dry, crackling râles, near the ear, in different parts of the left chest. On the right side there is absence of vesicular breathing, but there is heard a distant bronchial breathing, most marked in expiration. I think that none of you would mistake this for the bronchial breathing of solidification of the lung. You often hear it said that, where there is a large pleural effusion, in addition to flatness on percussion, there is feebleness or absence of the respiratory murmur. This may be taken as a general statement, but that it is not always true this single case would show. This bronchial breathing would not be mistaken for that of solidification of the lung, because, in the first place, you would recognize that it was not formed close to the ear; in solidification it appears to be immediately under the ear; in the second place, the murmur is less marked on inspiration than on expiration, and, if you listen carefully, you will find that it is exactly like the laryngeal sound caused by the difficult breathing. If the person is instructed to breathe with his mouth open, making no noise in the throat, the murmur disappears. Remember, then, that not rarely in cases of large pleural effusion there is heard a distant bronchial breathing, most marked in expiration, which is transmitted from an obstructed bronchial tube, the larynx, or the trachea, through the tense thoracic walls, to the ear.

We recognize that there is a large pleural effusion, and the formation of this tumor does away with the necessity of discussing its character. In children, the effusion rarely remains serous for any length of time, so that the fact that a child has had a pleural effusion for several weeks is almost conclusive evidence that it is purulent.

The treatment of the early stage of pleurisy in children is often unsatisfactory because the disease is frequently not recognized. The symptoms of acute pleurisy in children are often masked by the symptoms of derangement of the stomach and bowels, or by nervous symptoms simulating the onset of some specific fever. In this case, the symptoms first noted were those of violent enterocolitis, and, after these had passed away, examination of the chest revealed pleuritic effusion. In pleurisy, the pain of which the child complains is often not referred to the chest, but to the stomach, or even to the back, or thigh. This difficulty in diagnosis is only to be overcome by the use of the practice of which I so frequently speak: that is, when we are called to see a patient, and particularly if the patient is a child, for it cannot speak and tell us its symptoms, we fail to do our duty unless we examine the patient critically from head to foot, paying particular attention to the condition of the lungs and heart. By doing this, we recognize those symptoms which cannot be masked. In this way we are able to decide that an attack which seems to be one of violent intestinal disorder is, in reality, acute pleurisy, complicated by the intestinal trouble.

Even if we recognize the early stage, we cannot treat acute pleurisy as successfully in the child as in the adult. The treatment should consist of counter-irritation by leeches, and later, when the effusion has occurred, by blisters, or the application of iodine; and of the administration of quinia in large doses to try to prevent the tendency to suppuration. After the fever has subsided, iodide and acetate of potassium, and, if the heart be irritable, digitalis, should be given. The chances are that despite the best treatment it will rapidly run into an empyema; after pus has

formed it must be gotten rid of as soon as possible.

This brings me to speak of the terminations of empyema in the child. The most favorable is that which is going to occur in this child,—*i.e.*, spontaneous perforation through the chest-wall. This takes place much oftener in children than in adults. The point at which the opening forms is usually on the antero-lateral portion of the chest, about the line of the nipple in the fourth interspace; sometimes being as low as the sixth interspace, as in this case.

As soon as the pus is discharged the swelling subsides, and a ragged fistula is left, communicating with the pleural cavity and discharging pus. When the pus escapes, air enters the chest, and pyo-pneumothorax is produced. The lung cannot at once expand and fill the pleural cavity, but, owing to the elasticity of the ribs, they yield to atmospheric pressure, and are compressed. The affected side of the chest becomes contracted, the opposite shoulder elevated, and the spinal column curved; but after a time the lungs begin slowly to expand, the chest assumes its natural appearance, the spine becomes straightened, and the child is as well as ever. This is the ordinary result of this termination in young children.

Unfortunately, the disease does not always terminate in this way. Frequently, hectic fever develops, and the child dies of exhaustion; or, in its weakened condition, some affection of the stomach or bowels occurs, and it dies of intercurrent disease; or a latent tuberculous tendency, which the child has inherited, is developed, and the child dies from an outbreak of tuberculosis; or the pus may concrete into a semi-solid mass, and we have a lingering illness resembling a slow phthisis. The tissues of the child's chest are so soft that they rarely stand the strain long enough to allow the pus to discharge into other parts. In adults, the empyema may open into the stomach, pericardium, or some other cavity; in the child, it occasionally opens into a bronchial tube. This is, next to spontaneous perforation through the chest-wall, the most favorable termination: this usually results in recovery, but not with as much certainty as when the pus is discharged externally.

If the effusion does not quickly disappear under the plan of treatment before mentioned, you should make an exploratory puncture with a hypodermic needle, or the small needle of the aspirator, in order to determine the character of the fluid. If pus be present, it should be drawn off with the aspirator, and the opening allowed to close. It is always a good plan in children to try the effect of a single puncture; sometimes there is an immediate apposition of the pleural walls, and no further collection of pus occurs. This plan is much less successful in adults; still, it is worth trying. The chances are, however, even in children, that the accumulation will reappear: it then becomes necessary to adopt some more radical plan of treatment. The elasticity of the thoracic walls renders unnecessary such serious operations as making an incision into the chest and removing a portion of a rib. The best methods of treatment are the introduction of a silver tube with a valve, so that it may be opened twice a day to allow the escape of pus, and thorough drainage. The latter is accomplished by arming a strong curved needle with a drainage-tube, passing it in one intercostal space and out of the one above, drawing the tube through and knotting it. The child is able to go about as usual, and the amount of pus gradually diminishes. This plan has succeeded very uniformly in my hands. I have also seen good results from the use of the silver tube. Disinfecting injections are not so necessary in the child as in the adult, for the sinking in of the ribs prevents much pneumothorax.

In this case, expectant treatment is proper, for in a few days the chest will open spontaneously: if it does not, I shall have it lanced. I shall have the patient come back in a month, and we shall see what has been accomplished in that time.

TRANSLATIONS.

THE REMOTE EFFECTS OF ALCOHOL.—At a recent congress, held at Rouen, of the Association Française pour l'Avancement des Sciences, M. Picqué reported a case of fracture of the external malleolus, and abrasions of the face, in a patient presenting the appearance of alcoholism. The following day erysipelas developed in the face, extended to the scalp, and the patient succumbed from hyperpyrexia.

At the autopsy the examination confirmed the diagnosis, and revealed a suppurating synovitis in the articulation corresponding with the fracture; also a cirrhosed liver. The reporter concluded that the erysipelas was aggravated under the influence of the visceral lesions, especially of the cirrhosis of the liver, and that the erysipelas thus aggravated had caused, by auto-inoculation of the individual, the synovitis which nothing else explained. Prof. Verneuil, in discussing this case, pointed out the importance of accumulating a large number of cases in order to determine the influence of diathesis upon the healing of wounds. The fatal result in this case he could only attribute to a modification of the organism from the long-continued use of alcohol, which is also shown by the condition of the liver.—*Revue de Thérapeutique Médico-Chirurgicale*, No. 19.

THE ALKALOIDS OF COTO BARK.—Albertoni (*Archiv für Exper. Path. und Pharmac.*, September, 1883) discusses the properties of cotoin and paracotoin, derived respectively from the two kinds of bark, coto verum and paracoto. He finds that cotoin does not hinder putrefaction or the development of bacteria. Injected into the jugular vein, it causes dilatation of the vessels of the abdominal cavity; the blood-circulation in the intestines being increased. Therapeutically it is considered of value in diarrhœa accompanying mental disease, in chronic intestinal catarrh, and in looseness of cachectic states, such as phthisis; it is contra-indicated in hyperæmia of the intestines and hemorrhage. Fronmüller thought it of service also in restraining the sweating of consumptives. The usual dose is from two to three grains. Paracotoin he regards as a weaker preparation in its physiological action. [Prof. Balz, of Tokio, is said to have treated cholera successfully with three-grain doses of paracotoin given hypodermically. Jobst denies to cotoin any constitutional effects. See U. S. Dispensatory, p. 1624.—ED.]

TREATMENT OF SUPPURATIVE PHLEBITIS.—Dr. Demons recommends active interference in a case of suppurative phlebitis of accessible venous trunks, instead of waiting to determine post mortem the existence of metastatic abscesses in the lungs in order to make out the diagnosis of purulent infection. He treated one case of inflammation of the veins at the bend of the elbow, following a cut with a razor, by longitudinally cutting down upon the veins, which he found full of pus; this he removed, and cauterized the lining membrane with a solution of chloride of zinc (ten per cent.), covering the part with a Lister dressing. The patient recovered. Since the veterinary surgeons sometimes extirpate the jugular vein under similar circumstances, he asks if this means would not perhaps be preferable.—*Revue de Thérapeutique Médico-Chirurgicale*, No. 19.

ANÆSTHESIA OF THE LARYNX BY TÜRCK—SCHROETTER'S METHOD.—Paulsen, in a communication to the *Monatsschrift für Ohrenheilkunde*, adopted Schroetter's method for producing anæsthesia of the larynx in a case of laryngeal polypus. He applied directly to the larynx pure chloroform, painting the surface twelve times; this provoked a hyperæmia of the mucous membrane, which favored the absorption of morphia, which was applied in the same way (a ten per cent. watery solution of the muriate of morphia). He advised the patient not to swallow during the application, and after each painting to gargle with a solution of tannin. Twelve hours after this preparatory treatment the larynx in all parts was insensible to the contact of the sound. The extirpation of the tumor was then readily accomplished. The proceeding is troublesome and disagreeable, and is to be resorted to only in cases of necessity.

INOCULATION OF ERYSIPELAS.—Dr. Fehleisen, in a paper read before the recent Congress of the German Surgical Association at Berlin, reported the results of numerous culture-experiments made with the micrococcus of erysipelas, and also some clinical cases in which the cocci were introduced into tumors. He also presented a patient who had the usual appearances of genuine facial erysipelas, who also had lymphoma of the neck, for which the inoculation had been made. The preparation used was the thirty-fourth generation of gelatin culture of the erysipelas germs; one inoculation was made, and on the following morning the patient had a chill, and at the same time the points of inoculation exhibited erysipelatous redness, which subsequently spread to the face.—*Berliner Klinische Wochenschrift*, No. 20.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, NOVEMBER 17, 1883.

EDITORIAL.

THE CRUISE OF THE "CORWIN."

THE United States revenue-cutter "Corwin" was sent in the spring of 1881 to the Arctic Ocean in search of the unfortunate "Jeannette" and the crews of two missing whaling-vessels. She sailed from San Francisco on May 2, and returned in October, having visited Alaska at intervals along its entire coast-line from Behring's Straits to Point Barrow, including Kotzebue Sound, also the Siberian shore from the Straits to the North Cape, landing on Herald and Wrangel Islands, and on returning spending some time at Ounalaska, one of the Aleutian Islands. Science having put the expedition under contribution, a valuable report* has recently been issued by the government, containing some very interesting information, consisting of medical and anthropological as well as botanical and ornithological notes and memoranda.

The birds of the Behring Sea and the Arctic Ocean were made a subject of systematic study by E. W. Nelson: this paper is illustrated by a number of chromo-lithographs, and contains the results of five years' previous study at Saint Michael's, Alaska, as well as the observations taken upon this expedition. Some botanical notes are contributed to the work by John Muir; but the most interesting portion to us is the first section, by Dr. Irving C. Rosse, who makes a very interesting report of his medical and anthropological observations. He notices the practical demonstration of the well-known fact that our sensations of cold and heat are not regulated directly by the rise or fall of the thermometer, but are largely relative, as a temperature steadily below zero was not only well borne but did not cause discomfort to the party; he also remarked the curious circumstance that cold weather and exposure were better sustained by the ship's crew than by the natives. On the other hand, when the temperature indicated by the thermometer was 60° (F.) the heat of the sun was almost overpowering to the sailors. This leads to a practical distinction by Dr. Rosse between "physical" and "physiological" heat or cold.

He found that while the ethnical points that distinguish the Eskimo from the North American Indian are distinctly marked, this cannot be said to be the case between the Eskimo and the so-called Tsuchtschi of the Asiatic coast. Reasoning from this and other facts, Dr. Rosse considers them of Asiatic origin, a view which receives further confirmation from their ability to cross Behring's Straits in boats, and from their practice of tattooing themselves, a custom which was evidently brought from Japan. He says, "Natives cross and recross Behring's Straits to-day on the ice, and in primitive skin canoes not unlike Cape Cod dories, which have not been improved in construction since the days of prehistoric man." Indeed, for some unknown reasons, their development ceased at the hunting and fishing stage: they are therefore the living representatives of the race that was contemporaneous with the cave-bear and mammoth in Europe. In some particulars Dr. Rosse differs from other Asiatic voyagers in some of his impressions of the Eskimo, or Innuits as they call themselves. According to his experience, they do not have the enormous appetites with which they have been credited; indeed, several of them, who accompanied the party, invariably ate less than the sailors did. It is true that when half famished they will eat

* Cruise of the Revenue-Steamer "Corwin" in Alaska and the North-West Arctic Ocean in 1881. Notes and Memoranda, Medical and Anthropological; Botanical; Ornithological. Washington, Government Printing-Office, 1883. 4to, cloth, pp. 120.

to repletion; but so will Europeans. He observed that a day's tramp in the sharp crisp air of the Arctic regions will develop such latent gastronomic capabilities in any vigorous man as will surprise him, and the Eskimo are not exceptions to this; but the popular notion of their enormous appetites is set down as a current fallacy, partly due to some of the repulsive articles of their dietary.

Contrary to general opinion, also, it is stated that their intellectual capacity is by no means feeble; they learn quickly, show great aptitude for trade, and acquire languages easily. Examination of their skulls does not indicate the low grade of intellectuality which they are commonly credited with, but they are well formed, and possess large brain-capacity, averaging as high as the French or Germans. They are honest, truthful, and good-natured, except when they have been corrupted by the bad examples of white men. Their ideas of family and sexual morality are low, their religion simply Shamanism. He saw nothing that would give foundation for the current belief that the dwellers under the Arctic Circle have less active sexual passions than those of warmer climes. The "heyday in their blood" is not cooled to any appreciable extent by their icy environment. With their intelligence and capacity for improvement, this would seem a most promising field for missionary labor. In the terms of Dr. Rosse, it affords "a brilliant opportunity for some one full of propagandism and charity to imitate the acts of the modern apostles, and extend the influence of civilization to the gay, lively, curious, and talkative hyperboreans whose home is under the midnight sun and on the borders of the Icy Sea." Attention is directed to their mal-hygienic mode of life, and, in consequence, to the terrible ravages made by epidemic diseases among them. They also suffer greatly from the deleterious effects of alcoholic liquors of very inferior character, which are surreptitiously sold by traders under the names of "Pain-Killer," "Bay Rum," "Jamaica Ginger," "Florida Water," etc., which he found to be only cheap alcohol with a little coloring-matter added. Although the taste is an acquired one, they seem to have an uncontrollable craving for alcoholic drinks, frequent indulgence in which favors their extermination by famine. With regard to the use of alcoholic drinks by Arctic voyagers, Dr. Rosse considers them almost a physiological necessity, if employed in moderation. He believes beer and claret to have especial value as anti-scorbutics, when taken with food, during an Arctic voyage; and he considers that it would be better for the natives from a moral point of view if these could be substituted for the adulterated drinks referred to, or used in place of "kvass," a vile native decoction made from sugar and flour, which are obtained in unlimited quantities from the traders who are forbidden to deal openly in alcoholic liquors. As Alaska and the Aleutian Islands are now a part of the United States, these reports, records of personal observations of the inhabitants of these places, are of especial interest and value.

RESULTS OF THE LABORS OF THE CHOLERA COMMISSIONS IN EGYPT.

THE official report of Dr. Koch's commission on the cholera in Egypt, with the results of his investigations, has just been published in the *Imperial German Gazette*.* Although the epidemic was on the decline when the Commission arrived in Alexandria, the objects sought to be attained by its appointment were kept prominently in view, and quarters were obtained in the Greek Hospital, where the necessary examinations and experiments were made. The autopsies were conducted

* Medical Press, October 24, 1883.

with great care, directly after death, in order to avoid changes incident upon putrefaction. Specimens of blood of typical cases of the disease and of their ejecta and excreta were also carefully examined. While the dissection of the corpses proved beyond doubt that the patients had really died from cholera, and not from diarrhœa or so-called cholerine, it was further demonstrated that in the intestinal tract there existed a peculiar form of bacteria in the utricular glands of the mucous membrane, and proliferating between the epithelium of the gland and the basement membrane, which was also found on the villi and even penetrating into their substance. In grave cases, with bloody infiltrations into the mucous membrane, these microbes were very numerous, and extended as deep as the muscular layer. Their favorite site appeared to be in the lower part of the small intestine.

These bacteria are rod-like, and therefore belong to the bacilli; they come nearest in size and form to the bacilli found associated with glanders. Dr. Koch, however, makes the significant statement that "if this discovery had not been made in perfectly fresh corpses, one could have made but little use, or no use at all, of it, for the influence of putrefaction is able to bring about similar bacterial vegetations in the intestines."* To determine the question whether these bacteria are the primary manifestation of the disease in the intestine, or are preceded by general infection, will require further study, and the Commission will proceed to India to continue its scientific investigations, the epidemic in Egypt having subsided. Thus far only a few culture-experiments have been made, but all attempts to communicate the disease to the lower animals, including monkeys, have failed. In the hospital, however, a laundress exclusively engaged in washing the linen of cholera patients was seized by the disease, which would lend some weight to the opinion of its possessing a truly contagious character, a view which seems to be gaining ground among medical men in India.†

Altogether, the results obtained have answered the original purpose of the preliminary investigation; but additional work is needed to solve finally the problem of the cause of cholera and to formulate the laws of its development. The fact that the disease has declined to such a marked extent in Egypt suggests the thought that peculiar conditions are required, or a special pabulum provided, in order that the disease may prevail epidemically, and that where these no longer exist the disease disappears.

In the *Egyptian Gazette* of September 27 there is contained a preliminary report of Surgeon-General Hunter, of the English Commission. From this‡ we learn that he obtained evidence, conclusive in his opinion, that cholera is endemic in Egypt, and that it had existed for some time before its appearance at Damietta, the cases being reported as diarrhœa or cholerine. He stated that the disorder giving rise to many of the cases of diarrhœa, which is so common and so fatal in Egypt, is in reality only a form of cholera. These views are opposed by Drs. Sierra and Vassalopoulos, of Alexandria, who maintain, in communications published in the *Progrès Médical*, the essential distinction between sporadic and Asiatic cholera, and insist that the latter was imported into Egypt from its habitat in India. The Board of Health of Alexandria has since issued a manifesto protesting against the views of Dr. Hunter "as tending to mislead public opinion and to encourage the belief that the cholera has been endemic

* "Wenn dieser Befund nicht an ganz frischen Leichen gewonnen wäre, dann hatte man ihn wenig oder gar nicht verwerthen können, weil der Einfluss der Fäulniss an Stande ist, ähnliche Bacterienvegetationen in Darm zu veranlassen." —*Berlin. Klin. Wochenschrift.*

† Paper by Brigade-Surgeon Scriven, British Medical Journal, October 27, 1883.

‡ Medical Times and Gazette, September 29, 1883, p. 377.

in Egypt since 1865."* It will, however, require more than a protest to remove the filth, overcrowding, and entire neglect of sanitation discovered by Dr. Hunter in Egypt, which afford a suitable soil for the propagation and extension of cholera so graphically described in his further Report,† and which make his conclusions worthy of serious consideration.

PROPAGATION OF DISEASE BY BOOKS.

THE *British Medical Journal* having recently editorially directed attention to the danger of the spread of contagious diseases by borrowed or second-hand books, the article has been extensively copied into other medical journals, and, as a rule, without comment. The danger seems to be practically quite a remote one, since the loaning of books, which is carried on by the great circulating libraries in England to a much wider extent than anywhere in this country, has not given rise to the serious consequences which have been feared. In this age of preventive medicine and investigation into the causes of disease, no such active source of contagion could have escaped notice in case it really existed. There are several reasons why we may dismiss apprehension of this from our minds as a prominent or even as a subordinate source of disease under ordinary circumstances. In the first place, cases of variola, scarlatina, and measles—for these are probably the only diseases that might be at all supposed to be communicated by such means—are usually isolated by those in charge, and would not be allowed to read books, even if they should wish to, during the period when the disease is most communicable. We do not regard it as supposable that typhoid fever could be communicated in this way, although mentioned by the writer of the article referred to. Secondly, reading-people are sufficiently intelligent and careful not to give borrowed books from a circulating library to a case of zymotic disease, even though the danger be a remote one. Thirdly, the manner in which a book is used is not favorable to acquiring or conveying the contagium, if there is such an entity. There are many sources of contagion that are much more important: paper money, for instance, which passes from hand to hand and is generally carried about the person; the furniture in the waiting-rooms at railroad-depots; the street-cars, with their cushions and dirty straw; the city hacks; the pawnbrokers' shops; even the air we breathe often contains epithelial cells and bacilli and spores innumerable, and in that of hospital wards peculiar bacteria have been detected. The recommendation to keep the books used by patients suffering with contagious diseases from being carried into other wards is certainly judicious, and is already adopted in our general hospitals, to which, however, such cases, as a rule, are not admitted: should they get in by accident, they are kept rigidly secluded and quarantined. The application of these rules to books, therefore, can scarcely be said to extend outside the walls of hospitals.

LEADING ARTICLES.

OPIUM-SMOKING.

THE Chinese practice of smoking opium has been the theme of a great deal of discussion, rather of a political and ethical character, however, than medical. Within a short time articles have appeared in several medical journals, which indicate that the subject is now beginning to attract the attention which it deserves, and it is possible that we may soon arrive at a clearer knowledge of the real cause of the peculiar effects which are known to follow this method of using the drug.

Dr. J. G. Kerr,‡ in a short communication, describes the modes of preparation of the watery extract, which is made under

* British Medical Journal, October 27, p. 841.

† Medical Times and Gazette, *loc. cit.*

‡ Medical News, October 13, 1883.

the supervision of the British government, and explains the method pursued by the natives, as follows:

"The smoker, lying on his couch or divan, with the pipe, lamp, and other implements on a tray, takes a portion of the opium-extract on the point of a wire and warms it carefully over the flame of the lamp. He dips it again in the little jar of opium until the requisite quantity adheres, alternately warming it over the flame of the lamp and pressing it on the flat bowl of the pipe, turning it over and over, and working it carefully on the end of the wire until it is reduced to the state of a soft solid by the evaporation of a portion of the water contained in the semi-fluid extract. During this process it swells up into a light porous mass from the formation of steam, and it must, therefore, be heated up to the boiling-point of water, and the presence of water prevents combustion.

"When the little bolus is brought to the exact state fitted for smoking, being still a soft solid, it is worked into a ring around the wire, the point of the wire inserted into the round hole of the pipe, and by twirling the wire around while withdrawing it the opium is deposited on the pipe and adheres to it, the hole in the ring of opium corresponding to the hole in the bowl of the pipe.* The stem being now applied to the lips and the bowl held over the lamp, the flame is drawn in over the opium, converting into vapor all the volatilizable material it contains. To understand what takes place it is important to note that preparatory to smoking the opium has been slowly and carefully heated until steam has been formed in its substance. While in this heated state and with water enough to prevent charring and to form more steam, the flame of the lamp is drawn over it by successive inhalations, producing the so-called smoke and leaving a solid residue, the 'in-she' or 'seconds.' The smoke is inhaled into the lungs and comes in contact with the immense surface of the respiratory mucous membrane, and through it acts upon the system."

The physiological effects of the inhalation of the smoke (or more properly, as pointed out by Dr. Kerr, of the vapor mingled with the products of combustion from the lamp) are not described in this article, as they are supposed to be generally known. Stupefying and narcotic in its immediate effects, when indulged in as a practice and to excess it produces emaciation, anæmia, and sluggishness, destroying healthy activity of mind and body, and rendering the victim unfit for performing life's duties, favoring early death, and possibly suicide. It is true, however, that many indulge occasionally in the pipe without any very evident ill effects, and a fatal narcosis from the immediate action of the opium when used in this way is unknown, thus differing materially from the other forms of opium-addiction.

Mr. Hugh McCallum has recently written in the *China Review* an interesting article on opium-smoking,† in which he claims that the effects of opium-eating and opium-smoking are not analogous, and, in fact, are altogether different. Knowing that the principal narcotic agent contained in opium is largely destroyed by the prolonged boiling and baking over a naked fire in an open vessel, according to the process generally followed in preparing the drug for smoking, and that only an infinitesimal quantity of morphia could be inhaled in the act of smoking, if any, he proceeded to test practically the question whether the effect of the pipe is in proportion to the amount of morphia contained in the drug. Making a number of preparations of different morphia strength and giving them to experienced smokers to use and report, he found not only that they were unable to appreciate the difference, but that the preparation of the highest morphia strength was considered as not being as good as another alike in every other respect, but containing only one-half as much morphia. Opium *minus morphia* was pronounced very good by an old opium-smoker, who on another trial smoked an equivalent of twenty grains of morphia in about twelve hours without unusual effects. The Chinese expert bases his opinion of the drug upon the physical appearance of the extract, its behavior in the flame of the lamp, and its smell, not on its effect when smoked: his judgment, therefore, is not governed by the alkaloid richness, but by other qualities. Some specimens were likewise submitted to these experts with a similar result: they were

* This is not properly a bowl, but a flat surface with a hole in it.

† See also *Druggists Circular and Chemical Gazette*, October, 1883.

unable to sort them according to their true value. Dr. McCallum says in conclusion, as the result of his investigations,—

"We have an opium expert, a man whose occupation is to judge of the quality of opium for smoking-purposes, gravely asserting that the Hong-Kong farmer's best quality of 'prepared opium,' containing seven per cent. of morphine, is not good. Not only that, but he condemns the same opium altogether when it contains fifteen and twenty-five per cent. of *added* morphine, and states it is not opium at all. At the same time, opium practically containing no morphine receives only qualified condemnation. The old opium-smoker does not recognize the same differences as the expert. He classes prepared opium containing seven per cent. of morphine, the same opium with fifteen per cent. of morphine added to it, and an opium practically free from morphine, together, all as being equally good. An opium containing twenty-five per cent. of added morphine is stated not to be good. Such statements could never have been made had these men based their judgment on the well-known effects produced by opium and morphine when eaten. Had any one dared to make a similar series of experiments on opium-eaters, there cannot be the shadow of a doubt but the experimenter would have made the acquaintance of the coroner's court and been indicted for manslaughter. Although these facts show that morphine has little if anything to do with the pleasure of opium-smokers, it cannot be denied that they appear to derive much pleasure and consolation from their pipe. Whence the pleasure? What gives rise to it? What are the temporary and permanent effects caused by smoking opium? These are questions that have not yet been satisfactorily answered; yet they ought to be, and in a scientific manner. Until this is done, the Anti-Opium Society and its supporters are not justified in branding the opium-trade with infamy, or the lovers of a pipe of opium as degraded beings."

Similar views to the above are expressed in a little work published last year in England, entitled "The Other Side of the Opium Question," written by Mr. W. J. Moore, who declares that the drug is "a comfort, a solace, a necessity, and often a blessing" to the Chinese. Certainly we would not wish to substitute for it any other form of opium-indulgence with which we are acquainted, and cannot believe that the evil effects of opium-smoking are at all comparable to those of the abuse of alcohol, which is the bane of "Western" civilized life.

NOTES FROM SPECIAL CORRESPONDENTS.

TOKIO.

RUMORS of the prevalence of Asiatic cholera in the China ports and beyond are continually reaching us. Thus far, however, but few cases have occurred in Tokio or any of the open ports of Japan, and the near approach of cold weather will, it is hoped, prevent any further spread in this direction. Swatow, in China, was recently declared by the Central Board of Health to be infected with Asiatic cholera, and accordingly a medical inspection at the open ports, and detention if necessary, of vessels coming from Swatow, were ordered by the authorities.

The experience of the past few years seems to point to a periodicity in the visits of cholera to these islands,—slight epidemics occurring in localities every other year, and more severe epidemics every fourth year. The type of cholera sometimes epidemic in Japan, although true Asiatic, does not seem to be of so virulent a character as that met with in China and India, a fact in all probability due to a better system of public sanitation existing here than in either India or China.

Kakke, or *beri beri*, a disease characterized by general muscular degeneration and nerve-atrophy, and in some forms accompanied by extensive anasarca, is just now claiming many victims in Yokohama and at the capital. As kakke patients, if not too far gone, rapidly recover by sojourning a few weeks in the mountains, the number of deaths seems low compared with the severity of the disease. In an article upon the diagnosis and treatment of kakke in the *Philadelphia Medical Times*, the acquirement of a better acquaintance with this disease on the part of physicians at home, and especially in large cities, was urged, as it was therein stated that foreigners frequently come to our shores suffering from this disease or bearing its seeds in their systems. In this connection, the following, taken from one of the Yokohama papers, is not without interest:

"The arrival of the *Riujio-Kwan* at Honolulu, with a number of cases of *Kakke* on board, would seem to have created some alarm in that port. We judge so, at least, from its having been found necessary to publish the following certificate:

"'H. I. J. M. S. "RIUJIO KWAN."

"'Medical Report on the Sickness.

"'We the undersigned, G. Trousseau, M.D., and Arthur Mouritz, M.D., have, this third day of July, 1883, visited the Japanese warship "Riujio Kwan," by order of the President of the Board of Health.

"'After a short interview with the captain, we visited the quarters of the seamen, and were shown by the doctor twenty-six men laid up in their hammocks. These men are all suffering from a disease peculiar to Asiatic races, principally the Japanese and Chinese, and known in Japan as kaki or kakke, and in the medical world as Beriberi (French name). We are thoroughly familiar with the disease, rather prevalent in the Hawaiian Islands amongst the Chinese laborers. Our opinion is that the disease is non-contagious, mostly induced by food-poisoning, although the cause of the disease is, we confess, rather obscure. The captain wishes to land the twenty-six sick men in Honolulu, hire a suitable house, beds, etc., to accommodate thirty people, and have the ship's doctor to attend upon them during the stay of the vessel in port, probably three or four weeks.

"'We see no objection to the President of the Board of Health allowing such a course, without any restriction whatsoever, although under all probabilities some of the patients will die during their stay in port. We only mention this fact so that no foolish scare should take place; and it might be advisable, in case the men were allowed to land, to publish a statement of the above-mentioned facts.

"'G. TROUSSEAU,
Port Physician.
"'ARTHUR MOURITZ.'"

The patent-medicine men of the land, both of old and new schools, seem to be thriving, as numerous sign-boards at shop-doors and an increased number of advertising agents in the streets do testify. The idea of the "sandwich man" method of advertising, so popular in America and England, has not yet been thoroughly grasped by the patent-medicine proprietors of this land, as no near approach to it has yet been made. The ingenuity, however, displayed in this direction shows that they are very apt scholars, while the implicit faith placed in all kinds of medicine by the common people makes this method of obtaining a living, one would say, very remunerative.

The proprietor of one of the largest daily newspapers is said to have made a fortune by the sale of an eye-wash labelled "collyria" in English, with directions, etc., in Japanese, which wash consisted of a solution of zinc sulphate in water, a solution of course of value in some cases.

Foreign patent medicines are also popular, but their use is, of course, more limited, on account of their comparatively high cost. Foreign pain-killers, various compound syrups of hypophosphites, anti-sea-sick remedies, and the like, are much used, while native imitations are not wanting. A wise government has, as in the case of native proprietary medicines, required a chemical analysis to be made of all foreign medicines of this character imported and offered for sale, a step which has resulted in the refusal to admit for sale one at least of our most popular nostrums.

Drugs, medicines, and chemicals are still imported into the country in large quantities, the total amount of which would seem, however, a falling off as compared with previous years, to be accounted for in a great measure by the fact that although larger quantities of remedies found in our Pharmacopœias are annually prescribed, yet the botanical resources of the country and the increased facilities for the manufacture of medical preparations are such as to permit of their being prepared at home.

The British consul at Yokohama, in his summary of trade for last year, just published, gives as the total import value of drugs, medicines, and chemicals, the sum of (Mexican) $394,624, to which amount quinine contributed $40,301, and santonine nearly $25,000, equal to 90,000 ounces. It is further stated that 34,000 pounds of bromide of potassium were imported. The importation of morphia amounted to about 6000 ounces.

The rapidly-increasing employment of Western remedies, together with the increased popularity of our methods of treatment based upon really scientific investigation into the causes of disease, contrasts very favorably with the slow and painfully conservative action of the native physicians of China.

CHICAGO.

THE fifth annual report of the Illinois State Board of Health, which is to appear shortly, will contain the following interesting matter relating to medical education and the practice of medicine. In June, 1880, the Board appointed a committee to formulate a schedule of educational requirements and characteristics by which the good standing of medical schools might be determined. This step was found necessary in order to enable the Board to better discharge the duty required of it by the Act to Regulate the Practice of Medicine in the State of Illinois, by which act the Board is directed to issue certificates to all who furnish satisfactory proof of having received diplomas or licenses from legally-chartered medical colleges in good standing. A schedule was prepared by the committee, and subsequently adopted by the Board as the standard entitling to recognition as the basis for legal qualification for practice in Illinois. Previous to that time a very small minority of the medical colleges of the country demanded

evidence of a good English education as a preliminary to the commencement of medical studies. The Illinois Board exacted these conditions: the several minor branches of mathematics, English composition, elementary physics, and natural philosophy, to be followed by actual attendance upon lectures. It further announced that, after this declaration, diplomas of colleges whose educational requirements and methods fell below the schedule would not be recognized as entitling their possessors to certificates from the Illinois State Board of Health. The conditions presented are especially important to students intending to practise in Illinois, as, unless their diplomas are from colleges in good standing, as thus defined, the only other method of entering practice in this State under the law would be by passing a satisfactory examination before the Board. The schedule of the Illinois Board has been adopted by the Missouri State Board of Health and the Minnesota State Board of Medical Examiners.

The report gives a full compilation of the medical laws of the various States and of Canada, together with a summary and analysis of colleges and students. The total number of colleges given is two hundred and eighteen, of which two hundred and four are in the United States. Diplomas have been presented to the Illinois State Board from one hundred and nine colleges, all but six of them being in the United States. Heretofore eighty-five of these have been recognized, sixteen rejected, and nine have been recognized conditionally. There were previously only forty-five which exacted a preliminary examination as a condition for matriculation, while at the present time there are eighty-two; and of those requiring an attendance on three or more courses of lectures before graduation, the number has been increased from twenty-two to twenty-seven. A total of fifty-three require a thesis as a condition of graduation, sixty-four have chairs of hygiene, and seventy-two have chairs of forensic medicine. There are seven colleges exclusively for women, the United States having five and Canada two. There were 12,502 matriculants for the session of 1882–83, classified as follows: regular, 10,402; homœopathic, 1204; eclectic, 824; and physio-medical, 62. The graduates numbered 4143. There are twenty-eight different institutions not recognized by the Illinois Board.

CHICAGO, November 5, 1883.

NOVEL CAUSE OF TINNITUS AURIUM.—An exchange mentions an instance of a gentleman who was much annoyed by crackling noises in his ears at night, which kept him from sleeping. An old lady suggested that there might be maggots in the feather pillow, which was found to be a correct diagnosis. Better in the pillow than in the head!

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a meeting of the Society held October 17, 1883, the President, Dr. W. M. Welch, in the chair, Dr. Arthur Van Harlingen read a paper on

THE TREATMENT OF PSORIASIS.

Psoriasis is one of the commoner skin diseases met with in this country. The statistics of the American Dermatological Association show that it occurs in the proportion of about six per cent. in all diseases of the skin encountered. Daily experience would seem to indicate a still more frequent occurrence, because the affection is a disfiguring and annoying one, and therefore patients are more inclined to seek relief, and also because it is a stubborn disease and greatly prone to relapse. The history of a single case will often extend over many years and bring it under the observation of a number of different physicians.

It is because of the comparative frequency with which psoriasis is met and its stubbornness to treatment, that I have selected it as the subject of my remarks this evening. Having had a good deal of experience in the treatment of the commoner forms of the disease, it is my intention to confine myself chiefly to the consideration of such remedies as have come under my own observation and use, only touching incidentally on others.

The object of treatment in psoriasis is the removal of the eruption as it exists upon the skin. We cannot hope with any degree of certainty in any given case to prevent a recurrence of the disease, or, if you please, a relapse. For the drug has not yet been discovered which will surely take away all tendency to the recurrence of psoriasis, and whoever promises a cure, in the wider sense of the word, to his patient, will, in a very great number of cases, find that he has been too sanguine. Fortunately, however, a certain number of patients do seem to recover. I do not know what has been the experience of others in this respect, but I have patients who have been under observation three, five, even eight and ten years without relapse. Such cases are, unfortunately, few.

Pre-eminent among the internal remedies which are useful in the treatment of psoriasis is arsenic, which may be justly called a specific in this disease. I think I am not asserting too much when I say that eight out of ten cases of psoriasis of average character and severity shall do better under the use of arsenic than with any other remedy. I prefer Fowler's solution given in the average dose of four minims thrice daily. I think this solution is often prescribed in too large doses, and I am sure the dose of five to ten minims, as given in the books, is too large for ordinary

use. Most patients bear a four-minim dose very well, but there are idiosyncrasies. I have sometimes been obliged to limit the dose at the beginning to one minim in cases where subsequently such toleration has been established that twelve minims have been taken with impunity. However, four minims is a good dose to begin with, and if the effect does not begin to show itself within ten days or two weeks, the amount may be gradually increased. Fowler's solution should never be given to the patient in a vial with directions to drop out the requisite number of drops. The patient is apt to make a mistake, vials of different sizes may pour out more or less in each drop, and there is always danger in leaving a half-empty vial of poison about the house. The solution is better given mixed with water, or with wine of iron or other convenient vehicle.

The effect produced by arsenic upon the eruption of psoriasis is, first, in diminishing the quantity of epidermic scales thrown off, and then in preventing the appearance of new lesions. The patches gradually lose their scaliness, begin to heal in the middle, and disappear little by little. It must be remembered, however, that arsenic is a slowly-acting remedy, and its use should be continued through many months to get the best security against relapse.

The other liquid preparations of arsenic used in psoriasis are Pearson's solution of the arseniate of sodium, and Donovan's solution of the iodide of mercury and arsenic. I have used the former in a few cases without noticing any perceptible difference as regards efficiency between it and Fowler's solution. The solution of mercury and arsenic (Donovan's) I have employed in certain stubborn cases with good effect where Fowler's solution has seemed to fail. The existence of syphilis as the cause of the eruption in these cases having been excluded, I am at a loss to account for the apparently greater efficacy of the mixed treatment. The dose given was as much as ten drops, and although this solution is weaker in arsenic than Fowler's, yet I am inclined to the opinion that the conjoint administration of the two drugs, mercury and arsenic, was the cause of the good result, rather than the increased dose. I should be inclined to use Donovan's solution in cases where Fowler's solution shall have failed.

The mixture of arsenious acid, black pepper, and sugar of milk, known as Asiatic powder, and recently placed in the Pharmacopœia, with the pepper left out, among the triturations, is of no particular value above the other preparations, and is not so convenient of administration.

Hypodermic injections of solutions of arsenic have been employed, but I have had no experience in their use.

Next in value to arsenic in the treatment of psoriasis is iron. I commonly employ the tincture of iron in cases where arsenic does not seem indicated. There is one type of psoriasis which includes robust, rosy, well-nourished individuals, "the very picture of health." Such people have never been sick a day in their lives, or perhaps may have had slight attacks of articular rheumatism. Such patients do well under arsenic.

But there is another type in which the individual is thin, poorly nourished, and perhaps somewhat anæmic. These are the cases which do well under iron, which is best administered in the form of the tincture of the chloride. With these two remedies, arsenic and iron, I usually succeed in curing ordinary cases of psoriasis, adding in rare cases cod-liver oil to the use of the tincture of iron when debility is present. Of course local applications are employed at the same time. Of these I shall speak presently.

In addition to the internal remedies mentioned, quite a host of others have been employed from time to time. Such are tar, carbolic acid, copaiba, phosphorus, tincture of cantharides, tincture of maize, carbonate of ammonia, acetate of potassium, and other diuretics; the alkalies, as liquor potassa and the alkaline mineral waters. Of these I have found alkalies and diuretics useful in cases where a markedly inflammatory condition of the skin has existed. The other remedies I have not employed, nor do I think the reports of their usefulness based on a sufficient number of facts, except in the case of tar possibly, to make it worth while to try them.

Equally important with the internal treatment of psoriasis is the external management of the disease. It is, of course, desirable to remove the eruption as soon as possible wherever it may be situated; but when it is found upon the face there is every reason to attempt its cure by all means and in the shortest time. External and internal treatment should therefore be combined when practicable. The first thing to do is to remove the scales. This may be done by means of local or general baths, wet dressings, etc., or by inunctions with fats and oils, by the use of soap, or by the action of impermeable dressings of india-rubber or oil silk. When only a few lesions are to be acted upon, a solution of salicylic acid in alcohol, 1 part to 16, well rubbed in with a sponge, will remove the scales very nicely.

The scales having been removed, the next thing is to apply such substances to the diseased patches as may most quickly modify the abnormal condition of the skin and bring it back again to a healthy condition.

An innumerable number of applications have been recommended for this purpose, the most of which I shall pass over with only a mention. Such have been soaps and alkalies, citric and hydrochloric acids, sulphur, iodine, and mercury, alone and in combination, together with the various forms and preparations of tar, creasote, and carbolic acid.

All of these remedies have their uses, and most of them, especially the tarry preparations, I have employed time and again in years gone by, and with moderate satisfaction. The introduction, however, of chrysarobin or chrysophanic acid, some six or seven years ago, put quite a new face on the local treatment of psoriasis; and since then, with the aid of this and other later discoveries, we are able to work a much more rapid change in the appearance and condition of the skin in this disease.

As chrysarobin is perfectly well known to all here present, both as to its advantages and as to its defects, I shall say but little about it in the ordinary form of its application, namely, as an ointment. When it first came out I tried it quite extensively, but its disadvantages seemed so great that I had already begun to restrict its use greatly in my practice, when a new agent appeared, which for every-day use has in my hands, until very recently, almost entirely superseded all other local applications. I refer to pyrogallic acid.

I do not think pyrogallic acid is by any means so well known as an application for the relief of psoriasis as is chrysarobin. If I may judge by the infrequency with which its virtues are mentioned in the journals (although I believe all recent text-books speak of it), it is not in general use. But it is, in my opinion, one of the very best remedies we have for the cure of cases of psoriasis of average severity. Employed in the form of ointment, of the strength of one-half to one drachm of the pyrogallic acid to one ounce of simple ointment, the effect produced by it is almost as rapid and decided as that brought about by chrysarobin, without the accompanying discoloration. A slight blackish staining is all that is produced, and the ointment can even be employed in the scalp without markedly discoloring the hair, if applied cautiously. It is desirable, however, not to apply soap or alkalies at the same time, because this causes a more permanent and deeper stain.

Pyrogallic acid cannot be used in extensively generalized psoriasis, when large surfaces are affected by the disease, without a certain amount of danger from absorption, as indicated by strangury and olive-green or tar-colored urinary secretions. With care, however, and the occasional suspension of the remedy for short periods, I believe this remedy could be employed even in universal psoriasis with good effect.

One more external application in psoriasis remains to be spoken of,—namely, naphthol. This drug, a derivative of coal-tar, was introduced into use several years ago by Kaposi, of Vienna, as a sort of substitute for carbolic acid. He recommends it very highly in psoriasis, in the form of ointment, about eighty grains to the ounce, and I have used it in this and other strengths, and also in solutions in alcohol and oil, with fairly good effect.*

Naphthol is not so active in its effect as chrysarobin or pyrogallic acid, but it is much more agreeable, and is, I think, peculiarly well adapted for employment upon such parts as are exposed to the view, as the face and hands. Like pyrogallic acid, it must be used with caution over large surfaces, as absorption with toxic effects may be produced.

It remains to mention briefly two or three methods of application of these remedies which have recently been brought forward. The first of these is the treatment by medicated gelatin, which was introduced by Professor Pick, the well-known dermatologist of Prague. My attention was first drawn to this by a pamphlet which Professor Pick kindly sent me, in which he gave an account of his earlier experiments with medicated gelatins, but I have not as yet had an opportunity of testing this method of medication as I should desire. I may say, however, that the method does not seem to me calculated to prove convenient and popular in private practice. I had for some time been making some experiments in my service at the Polyclinic in the preparation of gelatins impregnated with chrysarobin and pyrogallic acid, but without much satisfaction, when Dr. Charles L. Mitchell, the well-known pharmaceutist of this city, sent me some excellent preparations of his own, which seem to be perfectly adapted to the purpose for which they are intended. A bit of one of these gelatin sticks is cut off and placed in a water-bath, where it soon melts into a clear homogeneous fluid, which may then be applied to the lesions of the skin by means of a paint-brush. The advantages claimed are cleanliness and transparency. The coating of gelatin does not rub off on the clothes, and is therefore not so dirty as an unctuous application. A fresh coating can be painted on every day or two as the old layer wears off. The chief disadvantage of this method of treatment is that it requires apparatus which is not convenient to carry about, nor can the patient be trusted to employ it at his discretion. My own experience is that in psoriasis, at least, the gelatin applications are not active enough. I have not, however, used them with sufficient frequency to pronounce a positive opinion.

Recently a solution of chrysarobin in collodion has been recommended in the treatment of psoriasis by Dr. George H. Fox, of New York, and several dermatologists have confirmed his statements with regard to its efficacy. I have employed this preparation in one or two instances, but it has seemed to

* In a communication read before the American Dermatological Association last month, and published in the *American Journal of the Medical Sciences* for October, I have given the results of my experience in the use of naphthol in various diseases of the skin, psoriasis among the number. I may refer to that paper for further details as to the action of the drug in this disease.

me so much less active than the chrysarobin ointment that I have not been encouraged to continue its use. It has one great advantage over the gelatin applications, however, and that is that it can be applied extemporaneously and without the paraphernalia which must accompany the use of the gelatin.

A few weeks since, a pamphlet by Prof. Auspitz, of Vienna, reached me, in which that distinguished dermatologist recommended liquor gutta-perchæ as a vehicle for the application of chrysarobin. I at once obtained a ten per cent. solution, or rather emulsion, of chrysarobin in liquor gutta-perchæ, and, happening to have a case of psoriasis of the face and scalp under treatment, I gave some to the patient to apply once daily. The effect was so happy as to encourage me very much to hope that we have in this preparation the most convenient method of applying chrysarobin yet devised; and as chrysarobin is, after all, the most efficient local agent in the treatment of psoriasis as yet brought forward, I have no hesitation in urging the trial of this preparation on any one who may have a case of psoriasis under treatment. It is to be noted, however, that the same watch must be kept upon the skin for fear of exciting dermatitis as when the ointment is used. Only, when the liquor gutta-perchæ dries, which it does very quickly, there is little or no danger of rubbing the chrysarobin over the good skin, nor is there much danger, if any, of staining the clothing.

Dr. James C. Wilson read a paper entitled

NOTE ON HYDRARGYRUM FORMAMIDATUM.

Some accounts of this preparation have appeared in recent journals. Towards the close of last year, Prof. Liebreich proposed, in a meeting of the Berlin Medical Society, a new drug for the treatment of syphilis by the hypodermic method. Chemically this drug belongs to the amide group. Liebreich was led to use it from the fact that the ordinary amides of the body, of which urea is the principal one, are eliminated in an undecomposed state. When, however, the amide is in combination with a metal, decomposition occurs, and the metal is reduced and deposited. Liebreich found, by actual experiment, that this statement is true of mercury. It is supposed that the formamidated mercury, after hypodermic injection, undergoes decomposition, and that the metal mercury is set free in the tissues. The preparation is soluble in water, of neutral reaction, does not coagulate albumen, is not precipitated by caustic soda, and the presence of mercury can be demonstrated by potassium sulphide. It produces its effects very surely and rapidly. Liebreich regards it as the best remedy known for the hypodermic treatment of syphilis by mercury, as it is but little liable to excite local troubles or salivation. Later (*Medical Times and Gazette*, July 7, 1883) we find that Prof. Zeissel, in Vienna, after trial of this remedy in fifteen cases of syphilis, was well satisfied with the results. In three of these cases salivation was produced. Some pain followed its injection, which was not, however, so severe as that following the hypodermic use of mercuric chloride. Twenty injections was the maximum number required to disperse the manifestations even in severe cases.

Dr. Schacht, of Berlin (*New Remedies*, September, 1883), writes as follows:

"Formamide is a colorless liquid, boiling at about 195° C., which can be distilled without decomposition only in vacuo. It is prepared by acting upon formate of ethyl by ammonia. When pure it is neutral, but easily becomes acid.

"If a *concentrated* solution of formamide be *boiled* with precipitated mercuric oxide, decomposition ensues, and metallic mercury is separated.

"On the other hand, if a *dilute* solution of formamide be *warmed* on the water-bath with precipitated mercuric oxide, a clear colorless solution results, in which soda (hydrate of sodium) produces *no* precipitate. Sulphide of ammonium, however, precipitates the mercury as sulphide, both from the formamide of mercury and from mercuric chloride. Solution of albumen is precipitated by the latter salt, but *not* by the formamide.

"Formamide of mercury is prepared in the following manner: ten to thirteen grammes of freshly precipitated, completely washed, and still moist mercuric oxide are gently warmed with a little water in a porcelain capsule, with gradual addition of ten grammes of formamide. As soon as solution has taken place, the resulting colorless liquid is filtered into a litre-flask, and the latter filled to the litre-mark with distilled water. Each cubic centimetre contains 0.01 gramme of mercury, which is the quantity representing *one* hypodermic dose. Formamide of mercury keeps well in brown-colored bottles, and should also be dispensed in these."

In a note from Vienna (*Medical News*, October 13, 1883). it is stated that Prof. Neumann is now trying hydrargyrum formamidatum on a large scale as an anti-syphilitic. It is used hypodermically in doses of one cubic centimetre. It acts with far greater efficacy upon the recent efflorescences than upon the later manifestations. Pain of great severity and active local inflammatory troubles have resulted in Neumann's cases.

The preparation which I exhibit, made by Merck, of Darmstadt, is a one per cent. aqueous solution, and the dose of it is from one-half to one ordinary hypodermic syringeful.

It has not been possible to obtain this drug in this city until the present time. I would be glad to place the specimen which is exhibited in the hands of any member of the Society who may desire to make a trial of it chemically.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

At the semi-annual meeting of the Pathological Society of Philadelphia, held at the hall of the College of Physicians, Thursday evening, October 25, 1883, the President, Dr. Tyson, in the chair, Dr. Seiler read a paper on

THE PATHOLOGY OF PHTHISIS AND ITS LARYNGEAL COMPLICATIONS.

In this communication he gave his views regarding the pathology of tuberculosis and of phthisis and of the laryngeal complications of the two diseases. He defined tuberculosis as an auto-infectious disease, manifesting itself primarily by the production of minute neoplasms called miliary tubercles, which rapidly undergo retrograde metamorphosis, ending in caseation, leading directly to the dissemination of infectious material throughout the lymph-channels. This infectious material consists in cheesy matter due to scrofulous inflammation, which may remain encapsulated for a long period. He then described the histological characteristics of tubercles, and showed how they could produce consolidation of the lung-tissue by exciting secondary inflammation.

The lecturer then took up the consideration of the disease known as phthisis, and gave the following definition of it: "Phthisis is a progressive consolidation of the lung-tissue, due to a more or less localized inflammation, affecting primarily the apices, and undergoing retrograde metamorphosis; it is an inflammatory disease." He then gave a description of the pathological appearances as they are observed in the lung-tissue during the progress of the disease, and gave it as his opinion that the different forms and stages of phthisis, as they are described by many authors, are merely differences in the intensity and extent of the ulcerative process. As etiological factors he mentioned the various causes which produce a lowering of the vitality of the general system, thereby producing a predisposition on the part of the respiratory organs to chronic inflammation: among others he names heredity, peripheral nerve irritation, hypertrophic nasal catarrh, insufficient aëration of the blood, etc. An elevation of the vitality of the system at large would prevent an outbreak of the disease, or lead to recovery in cases where not too much lung-tissue had been destroyed. This elevation was to be produced by proper feeding and healthful exercise in the fresh air more than by the exhibition of drugs. On the other hand, tuberculosis is always fatal, and treatment was of no avail; but a great deal could be done to prevent the initial formation of the cheesy deposit by elevating the system of scrofulous patients early in life, thus preventing the outbreak of tuberculosis later.

The laryngeal complications of both diseases were then considered in detail, and their differences pointed out. According to the lecturer, the laryngeal lesions never appear prior to the lung-disease in phthisis; they are characterized by a peculiar pallor of the mucous membrane, the tumefaction generally affects the posterior portions of the organ, and the ulcerations are shallow and have a tendency to spread on the surface. Tubercles, or cheesy deposits, are never found in the tissues of the larynx in uncomplicated phthisis. In tuberculosis, on the other hand, tubercular deposits have been found in the larynx prior to the lung-complication, the mucous membrane is of a lurid-red color, the tumefactions are more commonly observed in the anterior portions of the larynx, and the ulcerations are deeper, with raised edges, and often extensive destruction of tissue.

The paper closed with the remark that the indiscriminate use of the terms phthisis and tuberculosis, when speaking of lung-disease, in our literature, was calculated to mislead the student, and to make careful investigation into the pathology and etiology of these diseases extremely difficult, if not impossible.

Dr. J. C. WILSON, being called upon by the President, said that he had listened with interest to the reading of the paper. The field covered by the writer is too great to permit the points to be discussed in detail. Two points, however, appeared to warrant comment. First, Dr. Seiler had several times used the expression "tuberculous material not derived from the exterior." If he had understood the paper aright, Dr. Seiler had not indicated his views as to the nature and source of this "tuberculous material." Does he follow the older doctrine, that of Bayle? or has he some new opinion as to the etiology of tubercle? Secondly, Dr. Seiler failed to make clear his means of recognizing tubercle either clinically or in the laboratory. It would be of interest to know the writer's views upon this vexed question. In a recent work, Hamilton, of Aberdeen, again seeks to establish a histological criterion for tubercle,—the presence of giant cells under a peculiar arrangement. This pathologist points out two modes of degeneration for tubercle: 1, caseous; 2, fibroid. To the latter Dr. Seiler makes no allusion.

He thought, further, that the author of the paper had scarcely emphasized with sufficient force the presence of tubercle among the lesions in the various forms of phthisis, as seen in post-mortem examinations.

He heartily concurred in the hopeful views as to the curability of certain forms of chronic lung-disease when treatment is instituted at an early period. Nothing has exerted a more unfavorable influence upon the therapeutics of such diseases than the false view that the constitutional tuberculous diathesis invariably antedates the local lesions of pulmonary consumption.

Dr. F. P. HENRY remarked that Dr. Seiler's paper was so comprehensive that he found it impossible to refer to more than a few of the points contained in it. He was not inclined to draw so broad a line of distinction between that form of pulmonary disease in which miliary nodules predominate and that in which the deposit is in larger caseous masses. Like Dr. Seiler, he was by no means convinced of the primary importance of the bacillus as a cause of tuberculosis, but was inclined, however, to attribute to it a prominent part in the production of the secondary symptoms of phthisis, those of systemic infection, which are largely septic in character. The symptoms of interference with oxidation caused by even extensive destruction of pulmonary tissue are subordinate to those of systemic infection caused by the absorption of the contents of cavities. The presence of the bacillus in the contents of these cavities is indispensable to the production of changes capable of producing this systemic infection. A small ulcerating cavity communicating with the absorbent vessels is more disastrous in its effects than a larger cavity shut out from the absorbents by a lining membrane or wall of fibroid tissue. He understood Dr. Seiler to deny the existence of the giant cell, and to make the statement that cross-sections of blood- and lymph-vessels have been mistaken for it. Dr. Henry did not agree with him in this view, but thought that the irregular contour of the giant cell and its granular protoplasm were sufficiently characteristic. Additional evidence of the existence of this cell was furnished by the experiment of introducing beneath the skin of an animal two thin glass covers, fastened together. In the interspace of the glasses giant cells have been found, and in such an experiment there can be no question of the cross-section of vessels. Dr. Seiler had several times referred to what is known in this city, and elsewhere, as Formad's theory of tuberculosis, which is that in certain animals predisposed to phthisis, and presumably in some human beings, the lymph-spaces are abnormally small, or, in other words, that in a given area of tissue there is to be found a greater number of endothelial cells than in non-strumous animals. Dr. Henry did not think this theory should be so extensively quoted until some more serious attempt had been made to establish or refute it. This might, he thought, be readily done by counting the cells in a given area of the tissue of strumous animals and comparing their number with that contained in the same area of tissue of non-strumous animals. He did not think any greater difficulty would be met with in this attempt than has been successfully encountered in the enumeration of the blood-cells.

Dr. BRUEN said that he believed in a hopeful prognosis in the early stages of many varieties of phthisis; even when the process of phthisis is advanced, the management of cases is more successful when the lesions are localized; less advanced lesions are more grave when the lesions are widely disseminated. Dr. Bruen thought that it had been proved that phthisis could be produced by inhalation of inorganic irritating particles, especially if there was inherited predisposition to phthisis or an artificially-damaged constitution. May not bacterial elements be among the irritants capable of developing phthisis when inspired in large numbers? and he thought they might be even more capable of creating damage than inorganic materials, because they possessed the power of proliferation. Dr. Bruen agreed with Dr. Seiler in his views in the main, and considered his paper most instructive and interesting.

Dr. MILLS thought it worth while to note the frequent occurrence of tuberculosis among those afflicted with chronic nervous and mental diseases. At the institutions for the feeble-minded and insane, phthisis or tuberculosis is a common cause of death. This fact, he thought, would lend support to the views of Formad rather than to those of Koch.

Dr. J. T. ESKRIDGE had observed that some who had participated in the discussion referred to the views of the pathology of tuberculosis expressed in the paper of the evening and to those entertained by Dr. Formad in order to prove the same thing. He regarded the theories of each of these men as widely different. If tuberculosis is the result of inflammation in a person whose lymph-channels are abnormally narrow, as claimed by the latter, he could not see that phthisis differed from tuberculosis, as maintained by the former. In regard to tuberculosis being frequently developed in chronic diseases of the brain and cord throwing light on the pathology of the former, he thought the association of these diseases proved nothing more than that a prolonged period of lowered functions of the body was a favorable condition for the development of tuberculosis. He confessed that he did not know what to believe with reference to the pathology of tuberculosis; enough, to his mind, had not been proved to establish firmly any theory yet advanced so that it might be accepted as positive fact. Dr. Eskridge agreed with Dr. Shakespeare in demanding more pathological investigation, following the clinical observation of the disease, before he could accept any view as positive of the pathology of tuberculosis. Dr. Eskridge called attention to the fact that many of the best clinical observers of large experience, such as Flint, Da Costa, and Hughes Bennett, considered tuberculosis and phthisis to be identical.

Dr. DAVIS asked Dr. Seiler if he taught that tubercle was caused by a caseous focus. He was answered, Yes. He continued: It is important to know whether this is the case or not, as the German surgeons excise caseous

glands, not so much for the deformity they produce as to obviate the liability to general infection. Would Dr. Seiler sanction this practice? As regards the possibility of cure, he believed, with Koster, Billroth, and Koenig, that tubercle is a local affection, and not a general disease. He had seen as marked tuberculosis in the knee as in the lung, the miliary tubercles being within an eighth or a quarter of an inch of each other. He has also seen tumor albus of the knee recover without operation. If the tuberculosis can get well in the knee, he believed that it can in some cases get well in the lung also.

Dr. SEILER, after thanking the Society for the interest shown in his paper, said that, as most of the questions submitted to him had been already answered in his communication, he would not reply in detail, owing to the lateness of the hour.

A vote of thanks was passed by the Society to Dr. Seiler for his interesting communication.

A social meeting was held after the close of the business of the evening.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting of the Academy was held, November 1, 1883, Fordyce Barker, M.D., LL.D., President, in the chair.

Dr. T. H. BURCHARD read a biographical sketch of the late Dr. Frederick D. Lente, of Cold Springs, New York. He was born in North Carolina in 1823, took the degree of A.M. from the University of North Carolina, graduated from the medical department of the University of the City of New York in 1849, and had since practised medicine in New York, at Cold Springs, Saratoga, and in Florida, the state of his health necessitating from time to time a change of locality. He once held a professorship in the University of the City of New York. Dr. Burchard described his lamented friend as conscientious, unpretentious, gentle, an earnest student, of active mind, thorough and accurate as a diagnostician, and self-sacrificing in his devotion to the interests of his patients. He died of cerebro-spinal meningitis.

ON THE RAPID EVACUATION OF STONE FROM THE BLADDER AFTER CRUSHING, WITH PRESENTATION OF A NEW AND SIMPLIFIED EVACUATOR.

Dr. FESSENDEN NOTT OTIS read a paper with this title. Dr. Otis reviewed the subject of evacuation of the bladder after crushing of stone at some length, referring to early instruments invented by Sir Philip Crampton, Clover, and others, and quoting from the writings of Dr. Bigelow, of Boston, whose later and more-perfected instrument was the one which he, Dr. Otis, had used with entire satisfaction until recently, when he had the pleasure of constructing one more simple in its make-up, more easily portable, less expensive, and free from certain imperfections which had been referred to that of Dr. Bigelow. The principal objection to the earlier inventions related perhaps less to the evacuator itself than to the size of the tube employed: it was then taught that the normal size of the urethra was equal only to twenty-one millimetres in circumference. It was now recognized that the larger the tube employed, consistent with the size of the urethra, the more readily would evacuation be effected. Dr. Otis referred to his published writings, going to prove that the normal male urethra varied in size from that of thirty-two millimetres to forty and more in circumference, and that the size of the canal bore a certain ratio to the circumference of the penis. In the numerous measurements which he had made, he had never found a single case in which the normal male urethra fell below twenty-eight millimetres, and he never hesitated on finding a constriction below this degree to look upon it as abnormal, and before proceeding to perform lithoplaxy to enlarge the canal by division or by dilatation, as the case might demand. It was specially important that a narrow meatus should be divided, rather than allow one's self to be led to the use of a small-sized evacuating tube with its accompanying disadvantages. The wounds produced by division or divulsion should be allowed to heal before proceeding with the principal operation. The difference in the working value of the large- and small-sized tube was illustrated in two experiments, in which, other things being exactly equal, a tube thirty millimetres in circumference transferred three hundred grains of crushed coral in thirty seconds, while one of twenty-seven millimetres transferred only two hundred and eighty grains in the same time. In the case of the old man with enlarged prostate, it was safer to use a smaller tube, rather than run the risk of introducing one of larger size. Dr. Otis traced the successive steps in inventions by Dr. Bigelow, Sir William Thompson, and others, in attempts to construct an instrument by which rapid evacuation could be effected, which would avoid introduction of air into the bladder and return of fragments of stone during the operation; which, in short, would permit of the most rapid evacuation with the best possible results.

The instrument which Dr. Otis then presented consisted of a hollow glass globe, about two inches in diameter, into one side of which, and projecting upward, was a metallic tube connected outwardly with a rubber air-cavity; into the other side, and projecting downward, was another metallic tube, connected with the tube entering the bladder. The receptacle for the particles of stone consisted of a small glass vessel attached to the globe below. The globe being filled with water, either by suction force through the tube, or by pouring in at the

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"This little work describes the ordinary roller bandage, the manner in which it is made, and the methods of applying it to the various parts of the body. These descriptions are rendered very plain and instructive by seventy-three illustrations, which were drawn from photographs taken from a living model on whom the different applications of the bandage were made. These illustrations, therefore, teach or explain the different methods fully as well, if not better than elaborate descriptions."—*Philadelphia American Journal of Pharmacy.*

"A peculiarity of the book is that Dr. Hopkins applied all sorts of bandages to different parts of the living body, and during the process in each case, wherever any special remark or description seemed required, he would stop just there to have a photograph taken. The illustrations are taken from the photographs, and hence are accurate. The plan of the work is, therefore, based on the most practically valuable principle, and the accomplishment of the task undertaken by both author and publisher has been creditably achieved."—*Richmond Medical Monthly.*

"The student and practitioner will in this little book find practical illustrations of the methods of its (the roller bandage) application perhaps not attainable elsewhere."—*Philadelphia College and Clinical Record.*

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"It is the most practical work of the kind that has ever come to our notice, and should be in the hands of every practitioner."—*Lansdale Medical Summary.*

"The directions given for application of the bandages are clear and specific, and will be easily comprehended, we think, by students, to whom the book will be a guide in the surgical room."—*Philadelphia Medical Times.*

"This little book we have read with much pleasure and profit. While in the carefully-written text it clearly explains the various modes of applying the roller bandage, it is so fully illustrated that it is no trouble to follow the exact meaning of the author. We cordially commend it."—*New England Medical Monthly.*

"Dr. Hopkins's little work on the roller bandage is a clear account of the various applications of that bandage to the different parts of the body. The doctor has done his work well."—*New York Medical Record.*

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connection with the receiver, the pressure upon the rubber air-bag forced the fluid into the bladder, which returned with fragments of stone when the bag was again allowed to expand. The relation of the two metallic tubes in the globe, one opening upward, and the other, carrying the stone, downward, prevented any return of fragments, or, indeed, any agitation of the fluid in the receiver below. The amount of water in the bladder could be augmented, if desired, by turning the globe over and pouring in at the connection with the fragment-receiver. The globe could be protected by a light framework with some additional cost. The instrument worked with great satisfaction, was easily portable, cost but half as much as that of Bigelow, was free from certain objections which had been offered to the latter, and the operator was enabled to see the progress being made through the glass globe and receiver. He also employed a tube a little more curved at the end than that used by Bigelow, by which it was rendered easier of introduction and was less liable to become clogged with mucus.

Dr. E. L. KEYES opened the discussion, saying that he had only seen Dr. Otis's instrument for the first time to-day, had not had an opportunity to employ it, and was therefore unable to speak with regard to its practical working; it certainly, however, appeared very simple, and promised to be of the greatest service. It attested the great ingenuity displayed by the inventor on previous occasions. He had used Bigelow's improved apparatus, and had found that it worked very satisfactorily indeed; the objection which had been raised to it, that the screen was liable to become clogged with mucus, had not held true in his experience. Dr. Otis had referred to the history of tolerance of the bladder to surgical manipulation, in which it was stated that it had been established before Dr. Bigelow dwelt upon the fact; Dr. Keyes said that this tolerance was well known to the first inventors of vesical evacuators. He also stated that the inventions of Clover, and others about his time, illustrated in the diagrams by Dr. Otis, were not intended for use upon the healthy viscus, but in its diseased state. Concerning the normal calibre of the male urethra, he did not think it best to form a high and fixed ideal on this subject, and insist upon dividing or dilating every urethra which did not conform to that standard. In general, the larger the tube employed for evacuation, the more easily would the fragments be removed, but he believed that we should not seek to introduce too large a tube, lest damage be done to the urethra; this was specially the case in the aged with enlarged prostate. He mentioned a case in which he had operated, using a smaller-sized tube with safety, and the patient was afterwards operated upon by another physician, who introduced a tube of large size with sad results. He believed that the majority of surgeons employed a tube of smaller size than that recommended by Dr. Otis, not but what the larger size in itself possessed certain advantages, but because they feared, possibly without reason, doing damage to the urethra. The success of the operation for evacuation depended upon a happy combination of the several points involved in the instrument used and of the steps of procedure, rather than upon the use of a tube of a particular size, or other single fact or detail.

Dr. OTIS closed the discussion by correcting certain theoretical objections to the instrument which had been raised by Dr. Keyes.

REVIEWS AND BOOK NOTICES.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By ROBERTS BARTHOLOW, M.D., Professor of Materia Medica and Therapeutics in the Jefferson Medical College of Philadelphia, etc. Fifth Edition, revised and enlarged. New York, D. Appleton & Co., 1884. 8vo, pp. 738.

Professor Bartholow has special talent for condensation, combined with a comprehensive knowledge of his subject, and a power of direct expression. That this combination is gratefully appreciated by the overworked American student and the no less overworked physician has been fully demonstrated by the remarkable demand for this work on therapeutics, which has now attained its fifth edition in less than seven years. On account of its convenience for reference and completeness, it has been adopted as a text-book in many of our medical colleges. The principal features of this treatise are now so well known that they need not be here specified: it is only necessary to quote from the preface that the present edition has been carefully corrected, and changed so as to correspond with the last revision of the United States Pharmacopœia, and that the opportunity has been embraced to incorporate some recent improvements in the science and art of therapeutics, which has somewhat increased the size of the work.

Among the sections considered worthy of special mention we might instance those on Electricity, Aliments, the shorter discussions of Massage, Air, Water, Hydrotherapy, and the various mineral springs of this country and Europe; while many of the newer remedies, convallaria, kairin, resorcin, curara, picrotoxin, muscarin, etc., receive ample consideration.

A few errors have apparently escaped the vigilant eye of the author. For instance, tinctura aconiti *radicis* (p. 597) should be tinctura aconiti according to the Pharmacopœia. Chrysarobin (U.S.P.), although officinal, does not appear in the work, nor can

Goa powder be found; chrysophanic acid is merely mentioned (on p. 639) as a constituent of rhubarb; its most important application in the treatment of psoriasis is not referred to. The author apparently considers carminatives of such slight importance that he has totally ignored such old-time friends as anise, cardamom, fennel, and ginger; and chamomile, both the English (Anthemis) and the German (Matricaria) variety, is also unaccountably missing; this is true likewise of musk, castoreum, cassia, juglans, tar, pitch, sapo viridis, wax, spermaceti, resin, and a number of officinal preparations which we think should appear in a text-book on materia medica (*i.e.*, aqua ammoniæ fortior, chartæ potassii nitratis, etc.). The very important fact of the great variation in strength between the French, German, and English makes of aconitine is not stated; a caution should here be given. An *aromatic* syrup of rhubarb should be included in the list as officinal under Rheum, in addition to the simple syrup (p. 639). For the sake of the student, it would have been proper to give the pharmacopœial definition in a few places where apparently without special reason it has been omitted (see Galla, p. 296; Picrotoxinum, 405; Thymol, 356; Alum, 292, etc.); and it would also have prevented mistake if the fact had been plainly indicated that these remedies are officinal. Among the non-officinal remedies worthy of being considered, but which we do not find, are pyrogallic acid, sodium ethylate, boroglyceride, jequirity, coto bark, and the new oleates of quinia, morphia, etc. The reference to sewer gas (p. 79) is liable to be misunderstood by the student, who might be led, from the context, to consider it as a definite chemical compound, or an elementary substance, which would be the reverse of truth, and the opposite, no doubt, of the author's views. He would, moreover, be inclined to entertain a doubt of the correctness of the statement (p. 77) that even the electric light could bring into the view of the otherwise unaided eye minute particles that are "extra-microscopic," including disease-germs; while the instructions given for making a flaxseed-poultice (p. 700) are scarcely such as would satisfy the requirements of the elder Professor Gross. The young practitioner, we fear, would hardly be able to justify himself before the coroner in case of an unfortunate result if he should follow the recommendation to give such large doses of veratrum viride as "℥ss of the fluid extract every fifteen minutes, until nausea or vomiting ensues," even though pronounced invaluable in puerperal convulsions (p. 606). He would find it much safer to begin with a smaller quantity. (The proper dose is given on p. 602 as ♏ ij–v.)

The instrument used by Dr. Mortimer Granville is not a "*percutier*" (p. 84), but a "*percuteur*" for applying massage to a nerve-trunk in the treatment of neuralgia. As the Pharmacopœia uses the word "officinal" to designate the titles of those articles of medical use which are directed to be kept in the shops, we can scarcely regard the word "official" as used by Dr. Bartholow as its equivalent. Every direction or process authorized by the Committee on Revision must be considered as official, but the term "officinal" is the only correct one to apply to the approved materia medica.

We do not make these corrections in a carping spirit, but merely to aid the author in still further improving a most useful text-book both for students and practitioners. F. W.

GLEANINGS FROM EXCHANGES.

FORCIBLE DILATATION OF THE CARDIAC AND PYLORIC ORIFICES OF THE STOMACH.—The London *Lancet* of September 1, 1883, contains a brief report of two operations performed by Prof. Pietro Loreto for the relief of cardiac and pyloric stenosis by forcible dilatation, a full report of which by Dr. A. Albertini is to be found in the *Gazetta degli Ospitali* of August 18. The operation upon the pylorus was performed by the fingers, and was the fourth one of this kind made by Professor Loreto. The patient—a woman, æt. 34—had suffered for three years from an affection of the stomach, accompanied by vomiting and nausea, and was so emaciated as to resemble a skeleton. The stenosis was diagnosticated as inflammatory in character. The operation of opening the abdomen and stomach, dilating the orifice, and closing the wound occupied thirty minutes. Adhesions existed between the stomach and liver, intestines and omentum. Several arteries required ligation. The dressings were removed on the tenth day, and the wound was found healed. No constitutional disturbance followed the operation. The patient left the hospital at the end of a month perfectly cured.

On July 9, Professor Loreto performed an operation of forcible dilatation upon the cardiac orifice of a patient, a woman, who had suffered four years from symptoms of cardiac constriction. Continuous vomiting and incessant pain had produced extreme emaciation. In this operation a metallic dilator was employed to widen the contracted orifice. As in the first operation, the wound healed by first intention and without constitutional disturbance; vomiting ceased, and the patient regained flesh rapidly, increasing fourteen pounds in weight within six weeks.

The promptness with which union of the wounds occurred, and the entire absence of constitutional disturbance, invite attention. It is presumed that great care was exercised in surrounding the patient with the best hygienic

conditions, in the preliminary preparation of the patient, in the employment of antiseptic precautions, and in careful after-treatment. It would seem that successful results after such operations must depend upon all of these precautions.

According to the statement in the *Lancet*, Professor Loreto has operated in five cases. So far as we know, no report has been made of the condition of the patient first operated upon. It is quite manifest that great interest centres in the permanent character of the relief afforded by the operation, and with regard to this question time alone can decide. Another point of interest relates to the application of this operation to cases of malignant diseases, which, as a rule, involve the pyloric more frequently than the cardiac orifice. In certain cases where ulceration is absent, forcible dilatation might afford temporary relief, but an important question suggests itself, whether it would not be better surgery to perform, in all cases of malignant disease, the radical operation of resection of the organ, as has been successfully done. The operation of opening the stomach is too grave in character to be done as simply a palliative measure.

No details of the operative procedures are given in the first operation. In the second case it is stated that the incision in the abdominal wall was almost horizontal and just below the ensiform cartilage. The stomach was freely opened below the small curvature.

From the results in these two cases it would appear that the stomach does not resent operative interference of rather severe character, and that the procedure of forcible dilatation is sufficient to relieve a condition of stenosis which had given rise to very grave symptoms and conditions which foreshadowed fatal terminations. The question which remains to be solved is in regard to the permanent character of the relief afforded by the operation.

MISCELLANY.

INVESTIGATION INTO THE CAUSE OF THE YELLOW FEVER AT PENSACOLA.—By order of the Secretary of the Navy, a court of inquiry has investigated the circumstances connected with or which led to the recent outbreak of yellow fever at the United States Navy-Yard at Pensacola, Florida. After duly considering the facts, the court arrived at the following conclusions:

"*First.* 'As to the circumstances which led to the outbreak of the fever.'

"Having reviewed the evidence, we are now of opinion that the epidemic of yellow fever, now near its close, prevailing on the Naval Reserve, may be traceable to one or more of four origins,—viz.:

"1st. Possible infection from Pensacola by communication of persons, and by articles brought from that city.

"2d. Articles in Equipment and Steam-Engineering Storehouse possibly infected in former epidemics.

"3d. Possible infection of marine barracks since 1875.

"4th. Probable infection from the ballast used and handled at Fort McRae jetties by men who lived in and visited the villages of Warrington and Woolsey weekly and semi-weekly in their working clothes.

"*Second.* 'Whether or not proper measures were adopted to prevent the introduction of yellow fever into the navy-yard.'

"The first case of yellow fever having appeared in the marine barracks within the navy-yard previous to the death of the first case in Warrington, and not finally diagnosed and decided to be yellow fever until three days after attack, any precautions that could have been taken at that time to prevent the introduction of the disease into the navy-yard would have been unavailing, as the marine guard and the surgeon himself were already infected."

DAMAGES FOR ACCIDENTS DURING ANÆSTHESIA.—A suit brought against a dentist in New York City for negligence in allowing a piece of a tooth to drop into a patient's throat, which, after causing the patient to suffer with a cough, was expectorated at the end of a month, was recently decided against the defendant, who was obliged to pay five hundred dollars damages. The case was appealed, but the judgment was sustained. This recalls a case of a boy who died while under the influence of nitrous oxide gas, being suffocated by a molar tooth which slipped out of the forceps and became impacted in the larynx. In such cases, a dentist should be both competent and willing to perform tracheotomy, for the patient will generally die of suffocation before a surgeon can be summoned.

QUADRUPLETS.—*The Canadian Practitioner* contains an account of four living children at a birth, two boys and two girls, with but a single placenta. The mother was a small woman, weighing one hundred pounds, 38 years old, and had nothing unusual in three previous confinements. The father is 41 years of age, weighs one hundred and sixty-nine pounds, and is a strong, healthy, and robust man. He is reported as doing as well as could be expected.

A CONSISTENT NO-CODE ADVOCATE.—Dr. H. H. Kane, of New York, having taken to advertising and dealing in a nostrum for the treatment of the opium habit, has had his name dropped from the roll of members of the New York County Medical Society.

CORRECTIONS IN THE PHARMACOPŒIA.—A list of the changes and corrections made since the publication of the last edition of the Pharmacopœia can be had by enclosing a stamp to the publishers, Messrs. William Wood & Co., New York.

A MARTYR TO SCIENCE.—M. Thuillier, a scientist, and member of the French Cholera Commission sent to Egypt under the direction of M. Pasteur to investigate the cause or causes of the cholera prevailing there, has died from the disease contracted in the cholera hospital in Alexandria.

THE IOWA STATE MEDICAL REPORTER is the title of a monthly medical journal recently issued,—the only medical journal published in the State. It is ably edited, and its contents are interesting and largely original. Price, $2 per year.

THE MEDICAL STUDENT is a new monthly journal issued in New York for circulation among medical students. It is well printed, and has an attractive appearance. The first number contains a letter from J. Milner Fothergill, of London.

OBITUARY.

DEATH OF DR. J. MARION SIMS, OF NEW YORK.

Dr. J. Marion Sims died of heart-disease at his home in New York City, November 13. He had retired, apparently in his usual health, the evening before. Early in the morning he conversed with his wife. Shortly after she observed that something was wrong, and immediately summoned his son. An examination showed that the doctor was dead. Dr. Sims was to have sailed for Europe on the 17th instant.

James Marion Sims, M.D., was born in Lancaster District, South Carolina, the 25th of January, 1813. In 1832 he was graduated from the South Carolina College at Columbia. He then studied medicine in Charleston, S.C., and at the Jefferson Medical College in this city, from which he was graduated in 1835. In 1836 he settled at Montgomery, Ala., and it was there he began to build up the reputation for daring and skilful surgery which has since extended throughout the civilized world. In 1845 he attracted attention to his new theory of the nature and origin of trismus nascentium, in regard to which he published a series of articles in the *American Journal of the Medical Sciences* three years later.

In 1845, also, he became especially interested in the subject of vesico-vaginal fistula. He supported a private hospital in Montgomery, Ala., for the treatment of this disease, at his own expense, and after four years was successful in his endeavors. He had introduced the use of sutures of silver wire, instead of the silken and other sutures formerly in general use, and he afterwards extended the employment of metallic sutures to all departments of general surgery. He also perfected all the mechanical appliances required for the successful treatment of vesico-vaginal fistula, and invented the famous "Sims speculum." His health failing in 1850, a change of climate was thought desirable, and in 1853 he removed from Alabama to New York City.

Being anxious to establish in the latter city a large hospital especially for the treatment of the diseases of women, he delivered an address for this object in May, 1854, before a meeting of the medical profession. He impressed his views on his hearers, and a Woman's Hospital Association was soon formed, under the management of many of the best-known ladies in the city. In 1861 Dr. Sims went to Europe, whither his fame as a surgeon had preceded him, and where he received great attention from members of his profession. He was invited to perform operations before Nelaton, Baron Larrey, Velpeau, and all the other prominent surgeons of Paris. In 1864 the French Government conferred upon him the order of Knight of the Legion of Honor. He accepted a special invitation from M. Deroubaix, the surgeon of the King of the Belgians, to visit Brussels and operate in the hospitals there, before the members of the Faculty. He created so marked an impression by the manifestations of his skill and the new ideas which he imparted that the Belgian professors immediately elected him a Corresponding Fellow of the Imperial Academy of Medicine, and also recommended his name to the Belgian Government for the order of Leopold I. The decoration was withheld at the time, but was conferred upon Dr. Sims during a visit to Europe a few years ago.

In 1870, after a hard struggle, he succeeded in organizing in Paris the Anglo-American Ambulance Corps, which did such efficient service. As a surgeon, the delicacy of his touch, the keenness of his perception, and the bent of his mind combined to make him especially fitted to treat the diseases of women. Throughout his life he kept enlarging the list of possible operations, so that his labors have rendered it possible for many women to benefit, with comparatively little risk, from operations which were formerly considered altogether impossible, or so hazardous as to be practically out of the question. His "Clinical Notes," published in 1866, is a standard work, and has been translated into French and German. On the 21st of December, 1836, he married Eliza Theresa, daughter of Dr. Bartlett Jones, of Lancaster, South Carolina. He leaves four daughters and two sons. One of his daughters is the wife of Dr. Thomas T. Pratt, formerly of Alabama, but now of Paris. His sons are Mr. W. Marion Sims and Dr. H. Marion Sims, of New York City.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 27 TO NOVEMBER 10, 1883.

BACHE, DALLAS, MAJOR AND SURGEON.—Paragraph 1, S. O. 238, A. G. O., October 18, 1883, assigning him to duty at Willet's Point, New York, revoked. Paragraph 2, S. O. 252, A. G. O., November 3, 1883.

MCKEE, JAMES C., MAJOR AND SURGEON.—Relieved from duty in the Department of California, and assigned to duty as Medical Director Department of the Columbia. Paragraph 5, S. O. 249, A. G. O., October 31, 1883.

PRICE, CURTIS E., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty at Fort Custer, M. T. Paragraph 1, S. O. 187, Department of Dakota, October 25, 1883.

STERNBERG, GEORGE N., MAJOR AND SURGEON.—Leave of absence granted October 4, 1883, extended one month. Paragraph 4, S. O. 255, A. G. O., November 7, 1883.

VICKERY, R. S., MAJOR AND SURGEON.—Assigned to duty at Fort Townsend, W. T. Paragraph 3, S. O. 149, Department of the Columbia, October 29, 1883.

WOLVERTON, WILLIAM D., MAJOR AND SURGEON.—Granted leave of absence for one month. Paragraph 6, S. O. 201, Department of the East, October 24, 1883.

MERRILL, J. C., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one month. Paragraph 7, S. O. 201, Department of the East, October 24, 1883.

PATZKI, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for three months, on surgeon's certificate of disability. Paragraph 6, S. O. 254, A. G. O., November 6, 1883.

WILSON, GEORGE F., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Townsend, W. T. Paragraph 2, S. O. 149, Department of the Columbia, October 29, 1883.

OWEN, W. O., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Vancouver Barracks, W. T., and assigned to duty at Fort Stevens, Oregon. Paragraph 2, S. O. 148, Department of the Columbia, October 26, 1883.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FROM OCTOBER 27 TO NOVEMBER 3, 1883.

The orders of Medical Inspector A. C. GORGAS to the Naval Hospital, Mare Island, California, revoked, and to remain at Naval Hospital, Chelsea, Massachusetts.

Medical Inspector SOMERSET ROBINSON to the Naval Hospital, Mare Island, California.

Surgeon F. M. DEARBORNE to appear before the Retiring Board November 5.

Medical Director A. L. GIHON and Medical Inspector A. HUDSON to represent the Navy at the meeting of the American Public Health Association at Detroit, Michigan, November 13.

Assistant-Surgeon J. M. EDGAR from the receiving-ship "St. Louis," at League Island, Pennsylvania, to the receiving-ship "Wabash," at Boston, Massachusetts.

P. A. Surgeon A. A. AUSTIN to the receiving-ship "St. Louis," at League Island, Pennsylvania.

There were no changes during the week ending November 10.